urface science

MASTER INDEX

Volumes 21-30

e 30 No. 4

A journal devoted to the physics and chemistry of interfaces

NOV 1 10 09 AM '72
UNIVERSITY OF HAWAII LIBRARY

Editor: Harry C. Gatos, Cambridge, Mass.

Regional editors: M. Balkanski, France,

Mino Green, U.K., G. Heiland, Germany

LAST ISSUE OF THIS VOLUME

ICAL
506

North-Holland Publishing Company-Amsterdam

ADVISORY EDITORIAL BOARD

FRANCE:	M. Balkanski, *Paris*, C. Sébenne, *Paris*
GERMANY:	G. Heiland, *Aachen*
JAPAN:	Shinji Kawaji, *Tokyo*
NETHERLANDS:	M. J. Sparnaay, *Eindhoven*
U.K.:	Mino Green, *London*, M. W. Roberts, *Bradford*
U.S.A.:	G. Ehrlich, *Urbana, Ill.*, H. D. Hagstrum, *Murray Hill, N.J.*, E. W. Müller, *University Park, Pa.*, T. N. Rhodin, *Ithaca, N.Y.*
U.S.S.R.:	V. G. Litovchenko, *Institute of Semiconductors, Ukrainian Academy of Sciences, Kiev*

EDITORIAL ADDRESSES:

Editor:

PROFESSOR HARRY C. GATOS, Building 13, Massachusetts Institute of Technology, Cambridge, Mass. 02139, U.S.A.

Regional Editors:

PROFESSOR M. BALKANSKI, Laboratoire de Physique des Solides, Faculté des Sciences, 9, Quai Saint-Bernard, Paris Ve, France.

DR. MINO GREEN, Zenith Radio Research Corporation (U.K.) Ltd., 9 Dalston Gardens, Stanmore, Middlesex HA7 1BJ, U.K.

PROFESSOR G. HEILAND, 2. Physikalisches Institut, Rheinisch-Westfälische Technische Hochschule, Templergraben 55, 51 Aachen, Germany.

Contributions may be written in English, German or French. They should be submitted in **triplicate** with original drawings of the figures and an abstract in English.
All manuscripts originating in France, whether in French or in English, should be submitted to the Regional Editor in France.
All manuscripts originating in the Federal Republic of Germany, the Democratic Republic of Germany and Austria, whether in German or in English, should be submitted to the Regional Editor in Germany.
All manuscripts originating in European Countries, other than those mentioned above, as well as those originating in Africa, should be submitted to the Regional Editor in England.
All manuscripts originating in North and South America, in Asia, in Australia or New Zealand, should be submitted to the Editor.

SURFACE SCIENCE is published in monthly issues. The subscription price per volume of 700 pages is Dfl. 117.60, $ 37.00, postage included.

SUBSCRIPTIONS should be sent to the publisher, NORTH-HOLLAND PUBLISHING COMPANY, P.O. Box 3489, Amsterdam, or to any subscription agent or bookseller.

BOOKS FOR REVIEW should be sent to PROFESSOR HARRY C. GATOS.

© *North-Holland Publishing Company, 1972.*
All Rights Reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, without the prior permission of the Copyright owner.

PUBLISHED MONTHLY PRINTED IN THE NETHERLANDS

2ND CLASS POSTAGE PAID AT LONG ISLAND CITY, N.Y. AND AT ADDITIONAL MAILING OFFICES

AUTHOR INDEX

ABBINK, H. C., *see* OTTER, JR. **27** (1971) 273
ABERDAM, D., G. BOUCHET and P. DUCROS, LEED study of surface structures on the (001) face of BaTiO3 . . . . . **27** (1971) 559
ABERDAM, D. and C. GAUBERT, Study of the temperature dependence of LEED intensities from the (001) surface of $BaTiO_3$ between 20°C and 650°C **27** (1971) 571
ABRAHAM, F. F., *see* DAVE **26** (1971) 557
ADAM, P. and H. WEVER, Faceting and surface transport phenomena on tungsten in the presence of an electric field or a temperature gradient . **21** (1970) 307
ADAMS, D. L., L. H. GERMER and J. W. MAY, The adsorption of hydrogen on tungsten (112); co-adsorption of hydrogen with oxygen **22** (1970) 45
ADAMS, D. L. and L. H. GERMER, Adsorption of hydrogen on W (100) . . **23** (1970) 419
ADAMS, D. L. and L. H. GERMER, The adsorption of nitrogen on W (100) . **26** (1971) 109
ADAMS, D. L. and L. H. GERMER, Adsorption on single-crystal planes of tungsten. I. Nitrogen **27** (1971) 21
AL KHOURY NEMEH, E., R. C. CINTI et NGUYEN T. T. A., Epitaxie du plomb sur le nickel (111) **30** (1972) 697
ALLAN, G. and P. LENGLART, Electronic surface states in cubic lattices . . **30** (1972) 641
ALLIÉ, G. et A. GERVAIS, Correlation entre les propriétés électriques de NiO et ses propriétés structurales observées par diffraction d'électrons lents **25** (1971) 435
AMELIO, G. F., Band structure of silicon by characteristic Auger electron spectrum analysis **22** (1970) 301
AMELIO, G. F., A new method of measuring interface state densities in MIS devices **29** (1972) 125
ANDERSON, J. R. and N. THOMPSON, Study of adsorption of titanium on tungsten and rhenium by field electron emission **26** (1971) 397
ANDERSON, J. R. and N. THOMPSON, Adsorption of Cl_2 on titanium studied by field emission microscopy **28** (1971) 84
ANDERSON, J. S., *see* SMITH **24** (1971) 459
ANDERSON, P. R., A model for localized physical adsorption of ionic solids **27** (1971) 60
ANDERSSON, D. E. and S. ANDERSSON, Two-dimensional layers of tellurium on a copper (001) surface **23** (1970) 311
ANDERSSON, S., *see* ANDERSSON, D. E. **23** (1970) 311
ANDERSSON, S. and B. KASEMO, Low-energy electron diffraction intensities from the clean nickel (001) surface **25** (1971) 273
APPLEBY, A. J., Brønsted relationships in electrocatalysis. **27** (1971) 225
ARMSTRONG, K. R., *see* TEFFT **24** (1971) 535
ARMSTRONG, R. A., *see* LEGGETT **24** (1971) 404
ARNOTT, D. R. and J. A. RAMSEY, Electron emission from anodically oxidised aluminium due to tensile deformation **28** (1971) 1
ASH, R., R. M. BARRER and R. T. LOWSON, Diffusion of helium through a microporous carbon membrane **21** (1970) 265
ASPNES, D. E., *see* MCINTYRE **24** (1971) 417
AST, D. G. and D. N. SEIDMAN, Noble gas imaging of gold in the field ion microscope **28** (1971) 19

ATKINS, P. W. and A. D. WILSON, Ellipsometry and the theory of photon scattering from surfaces **22** (1970) 433
AZZAM, R. M. A. and N. M. BASHARA, Equi-azimuth and equi-ellipticity contour charts for ellipsometry **30** (1972) 101

BACAL, M. and M. CRISTESCU, The effect of electron reflection on the magnetron cut-off characteristic **26** (1971) 230
BAIDYAROY, S., W. R. BOTTOMS and P. MARK, Photodesorption from CdS . **28** (1971) 517
BAIDYAROY, S., W. R. BOTTOMS and P. MARK, The influence of surface structure on the chemisorption of oxygen by CdS single crystals . . **29** (1972) 165
BAIDYAROY, S. and P. MARK, Analytical and experimental investigation of the effects of oxygen chemisorption on the electrical conductivity of CdS **30** (1972) 53
BAIRD, T., J. R. FRYER and E. V. RIDDELL, Oxidation of thin tin films . . **28** (1971) 525
BAKER, B. G., B. B. JOHNSON and G. L. C. MAIRE, Photoelectric work function measurements on nickel crystals and films **24** (1971) 572
BAKHTIZIN, R. Z., *see* MILESHKINA **29** (1972) 644
BALESTRA, C. L., J. ŁAGOWSKI and H. C. GATOS, Determination of surface state energy positions by surface photovoltage spectrometry: CdS . . **26** (1971) 317
BALESTRA, C. L., *see* ŁAGOWSKI **27** (1971) 547
BALESTRA, C. L. and H. C. GATOS, Contact potential measurements on "clean" CdS surfaces **28** (1971) 56
BALESTRA, C. L., *see* ŁAGOWSKI **29** (1972) 203
BALESTRA, C. L., *see* ŁAGOWSKI **29** (1972) 213
BALKANSKI, M., *see* GUESNE **24** (1971) 18
BALL, D. J., T. M. BUCK, D. MACNAIR and G. H. WHEATLEY, Investigation of low-energy ion scattering as a surface analytical technique . . **30** (1972) 69
BALLUFFI, R. W., *see* SCHMID **28** (1971) 32
BALOOCH, M., A. E. DABIRI and R. E. STICKNEY, Measurements of the speed and spatial distributions of arsenic molecules evaporated from an As(111) crystal **30** (1972) 483
BARFORD, B. D., *see* RYE **27** (1971) 667
BARÓ, A. M., *see* SALMERÓN **29** (1972) 300
BARRER, R. M. *see* ASH **21** (1970) 265
BARTOS, I. and J. NADRCHAL, Complex band structure of Si and Ge with (100)-surface **22** (1970) 290
BASHARA, N. M., *see* AZZAM **30** (1972) 101
BASHARA, N. M., *see* IBRAHIM **30** (1972) 632
BASHARA, N. M., *see* IBRAHIM **30** (1972) 680
BASSETT, D. W., Field ion microscope studies on iridium adatom clusters on (110) tungsten surfaces **21** (1970) 181
BASSETT, D. W., The use of field ion microscopy in studies of the vapour deposition of metals **23** (1970) 240
BASTL, Z., On the demetallization effect of chemisorption **22** (1970) 465
BASTL, Z., Comments on: "Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen" by G. Wedler and P. Wissmann **30** (1972) 245
BASTOW, T. J., *see* WILSON **26** (1971) 461
BASTOW, T. J., *see* TABOR **26** (1971) 471
BAUER, H. J., D. BLECHSCHMIDT and M. VON HELLERMANN, On the influence of gaseous hydrogen on the saturation magnetization of thin evaporated nickel films **30** (1972) 701
BAYUZICK, R. J. and R. S. GOODRICH, Observations of grain boundaries with the field ion microscope **23** (1970) 225
BECKER, G. E. and H. D. HAGSTRUM, Orbital energy spectra of electrons in

chemisorption bonds: O, S, Se on Ni(110) and Ni(111) **30** (1972) 505
BECKEY, H. D., *see* RÖLLGEN **23** (1970) 69
BECKEY, H. D., *see* RÖLLGEN **26** (1971) 100
BECKEY, H. D., *see* RÖLLGEN **27** (1971) 321
BEGEMANN, S. H. A. and A. L. BOERS, Small angle multiple reflection of low energy (6 keV) noble gas ions from single crystal surfaces as a means to study surface texture and contamination **30** (1972) 134
BENNETT, A. J., B. MCCARROLL and R. P. MESSMER, A molecular orbital approach to chemisorption. I. Atomic hydrogen on graphite. . . . **24** (1971) 191
BENNINGHOVEN, A. Beobachtung von Oberflächenreaktionen mit der statischen Methode der Sekundärionen-Massenspektroskopie. I. Die Methode **28** (1971) 54
BERTOLINI, J. C., *see* DALMAI-IMELIK **27** (1971) 379
BERTOLINI, J. C., *see* DALMAI-IMELIK **28** (1971) 657
BIBERIAN, J. P. and M. BIENFAIT, Entropy of the (00.1) face of graphite . . **30** (1972) 242
BIENFAIT, M., *see* BIBERIAN **30** (1972) 242
BINH, VU THIEN, *see* VU THIEN BINH **25** (1971) 348
BIRDSEYE, P. J. and D. A. SMITH, The electric field and the stress on a field-ion specimen **23** (1970) 198
BISHOP, H. E. *see* COAD **21** (1970) 253
BISHOP, H. E. and J. C. RIVIÈRE, Auger spectroscopy of titanium . . . **24** (1971) 1
BLAKELY, J. M. and R. L. SCHWOEBEL, Capillarity and step interactions on solid surfaces. **26** (1971) 321
BLECHSCHMIDT, D., *see* BAUER **30** (1972) 701
BLOCK, J. H. and M.-S. ZEI, Desorption of carbonium ions from zeolite surfaces; a comparison of reactive surface ionization with field ionization **27** (1971) 419
BLOCK, J. H., *see* HELLWIG **29** (1972) 523
BOCKRIS, J. O'M., *see* FREDLEIN **25** (1971) 261
BOCKRIS, J. O'M., *see* PAIK **27** (1971) 191
BOCKRIS, J. O'M., *see* PAIK **28** (1971) 61
BOCKRIS, J. O'M., *see* BRUSIC **29** (1972) 653
BOCKRIS, J. O'M. and R. K. SEN, Variation of the coefficient of friction with potential for a solid–solution contact: a revised calculation **30** (1972) 237
BODDENBERG, B., R. HAUL und G. OPPERMANN, Adsorptionskinetische und NMR Spinecho-Untersuchungen zur Selbstdiffusion adsorbierter Moleküle **22** (1970) 29
BODDENBERG, B., Modell für die Oberflächendiffusion im Bereich der Mono- und Mehrschichtadsorption **22** (1970) 39
BOECK, W. L., *see* GARDNER **26** (1971) 605
BOERS, A. L., *see* BEGEMANN **30** (1972) 134
BONNELLE, J. P. and M. GUELTON, ESR evidence of surface Fermi level anchoring by surface additives on ZnO **27** (1971) 375
BONNETON, F. et M. DRECHSLER, Relaxation tangentielle de surface (en particulier de la face (112) d'un cristal cubique centré) **22** (1970) 426
BONZEL, H. P., A surface diffusion mechanism at high temperature . . . **21** (1970) 45
BONZEL, H. P. and N. A. GJOSTEIN, Comment on: "On surface diffusion and the existence of two-dimensional liquids" by G. E. Rhead . . . **22** (1970) 216
BONZEL, H. P., Auger electron spectroscopy study of a sulfur–oxygen surface reaction on a Cu(110) crystal. **27** (1971) 387
BOONSTRA, A. H., *see* NETTEN **27** (1971) 77
BOOTSMA. G. A., *see* MEYER **27** (1971) 88
BOOTSMA, G. A. and H. J. GASSEN, Room temperature gas adsorption on silicon carbide **29** (1972) 297
BOREL, J.-P., *see* DE RIBAUPIERRE **29** (1972) 265

BORRAJO, J. and J. M. HERAS, Electrical conductivity of thin cobalt films . **28** (1971) 132
BOTTOMS, W. R., *see* BAIDYAROY. **28** (1971) 517
BOTTOMS, W. R., *see* LEVINE **29** (1972) 144
BOTTOMS, W. R., *see* BAIDYAROY. **29** (1972) 165
BOUCHET, G., *see* ABERDAM **27** (1971) 559
BOUDART, M., *see* OLLIS **23** (1970) 320
BOUDREAUX, D. S., *see* HOFFSTEIN **21** (1970) 99
BOUDREAUX, D. S., Surface states on simple metals: aluminum **28** (1971) 344
BOUWMAN, R. and W. M. H. SACHTLER, Photoelectric determination of the work function of Ru-films as a function of sintering temperature (78 °K–925 °K) **24** (1971) 140
BOUWMAN, R. and W. M. H. SACHTLER, Photoelectric determination of the equilibration of metal and alloy films **24** (1971) 350
BOUWMAN, R. and W. M. H. SACHTLER, Photoelectric determination of the equilibration of metal and alloy films (E) **26** (1971) 364
BRADLEY, T. L., A. E. DABIRI and R. E. STICKNEY, Measurement of the spatial distribution of H_2 desorbed from Ni surfaces: effects of surface composition and crystal orientation **29** (1972) 590
BRADY, L. E., *see* HAMILTON **23** (1970) 389
BRENNER, S. S. and J. T. MCKINNEY, Construction and performance of an FIM-atom probe. **23** (1970) 88
BRÖCKER, F. J., *see* WEDLER **26** (1971) 454
BROWN, C. E. and P. G. HALL, Reaction of nitric oxide with a graphite surface, and the adsorptive properties of the resultant surface **30** (1972) 379
BRUMBACH, S. B. and G. M. ROSENBLATT, Factors determining residence lifetimes of As_4 molecules on an arsenic (111) surface **29** (1972) 555
BRUNDLE, C. R., Electron spectroscopy of surfaces **27** (1971) 681
BRUSIC, V., M. A. GENSHAW and J. O'M. BOCKRIS, On the possible influence of surface roughening on ellipsometric data in electrochemical studies **29** (1972) 653
BUCK, T. M., *see* BALL **30** (1972) 69
BURKSTRAND, J. M., F. M. PROPST, T. L. COOPER and D. E. EDWARDS, A note on energy loss measurements in tungsten **29** (1972) 663
BURNET, G., *see* MAZE **24** (1971) 335
BURNET, G., *see* MAZE **27** (1971) 411
BURNET, G., *see* MAZE **30** (1972) 716
BURNS, C. M., *see* LAU **30** (1972) 478
BURNS, C. M., *see* LAU **30** (1972) 497
BURTON, J. J., Gas phase nucleation: steady state rates for two cluster models **26** (1971) 1

CAHOREAU, M. et M. GILLET, Intreprétation de la croissance d'un dépôt épitaxique métallique sur un métal à partir du modèle de dislocations interfaciales **26** (1971) 415
CAPART, G., Dynamical calculations of LEED intensities at clean copper (001) surface **26** (1971) 429
CARDON, F. and W. P. GOMES, Experiments on the zinc oxide/electrolyte interface during anodic oxidation reactions under pulsed illumination . **27** (1971) 286
CARROLL, C. E. and J. W. MAY, Ionic monolayers on metals. I. Layers of like ions **29** (1972) 60
CARROLL, C. E., *see* MAY. **29** (1972) 85
CASSUTO, A., *see* OLLIS **26** (1971) 21
CASSUTO, A., *see* EHRHARDT **26** (1971) 490
CASTAGNÉ, R. and A. VAPAILLE, Description of the SiO_2–Si interface properties by means of very low frequency MOS capacitance measurements . **28** (1971) 157
CAZAUX, J., Dispersion of the surface "plasma" losses in semiconductors . **29** (1972) 114

CELLI, V., *see* MANSON **24** (1971) 495
CELÝ, J., *see* LITZMAN. **21** (1970) 390
CELÝ, J., *see* LITZMAN. **30** (1972) 250
CEROFOLINI, G. F., *see* KINDL **23** (1970) 299
CEROFOLINI, G. F., Adsorption and surface heterogeneity **24** (1971) 391
CHAKRAVERTY, B. K., *see* CINTI **30** (1972) 109
CHAKRAVERTY, B. K., *see* CINTI **30** (1972) 125
CHANG, C. C., Contaminants on chemically etched silicon surfaces: LEED-Auger method **23** (1970) 283
CHANG, C. C., Auger electron spectroscopy **25** (1971) 53
CHEN, J. M. and C. A. PAPAGEORGOPOULOS, LEED study of Na on W (112) **21** (1970) 377
CHEN, J. M., LEED, Auger and work function studies of clean and Na-covered surfaces of GaAs **25** (1971) 305
CHEN, J. M., A proposed model for the Cs–O covered semiconductor photocathodes **25** (1971) 457
CHEN, J. M. and C. A. PAPAGEORGOPOULOS, Work function and LEED study of Na and O_2 covered surfaces of W(112) **26** (1971) 499
CHEN, Y. C. and D. N. SEIDMAN, On the atomic resolution of a field ion microscope **26** (1971) 61
CHEN, Y. C., A model for interface states in silicon/silicon dioxide structure **23** (1970) 432
CHEN, Y. C. and D. N. SEIDMAN, The field ionization characteristics of individual atomic planes **27** (1971) 231
CHEN, Y. C., On the scattering of electrons in magnetic and electric surface states by surface roughness **27** (1971) 663
CHESTERS, M. A. and J. PRITCHARD, LEED and surface potential study of carbon monoxide and xenen adsorbed on Cu (100) **28** (1971) 460
CHUNG, M. F. and H. E. FARNSWORTH, Investigations of surface stability of II–VI wurtzite compounds by LEED **22** (1970) 93
CHUNG, M. F. and L. H. JENKINS, Auger electron energies of the outer shell electrons **22** (1970) 479
CHUNG, M. F., *see* JENKINS **24** (1971) 125
CHUNG, M. F. and H. E. FARNSWORTH, Enhanced chemisorption on CdSe (0001) by a hot filament **24** (1971) 635
CHUNG, M. F. and H. E. FARNSWORTH, Effect of bulk resistivity, annealing temperature and illumination on oxygen sorption on CdSe surfaces . **25** (1971) 321
CHUNG, M. F., *see* JENKINS **26** (1971) 151
CHUNG, M. F. and L. H. JENKINS, Characteristic energies in secondary electron spectra from Si(111) surfaces **26** (1971) 649
CHUNG, M. F., *see* JENKINS **28** (1971) 409
CHUNG, M. F. and L. H. JENKINS, LLM versus LMM Auger transitions for the light elements **28** (1971) 637
CINTI, R. C. and B. K. CHAKRAVERTY, The growth of silver films on silica in ultra-high vacuum. I. Experimental – growth model **30** (1972) 109
CINTI, R. C. and B. K. CHAKRAVERTY, The growth of silver films on silica in ultra-high vacuum. II. Discussion – nucleation model. **30** (1972) 125
CINTI, R. C., *see* AL KHOURY NEMEH **30** (1972) 697
CLARKE, T. A., R. MASON and M. TESCARI, Fourier analysis of LEED intensities in the determination of surface structures **30** (1972) 553
CLAUSING, R. E., *see* HOLCOMBE, JR. **30** (1972) 561
CLAVENNA, L. R. and L. D. SCHMIDT, Interaction of N_2 with (100) W . . **22** (1970) 365
COAD, J. P., H. E. BISHOP and J. C. RIVIÈRE, Electron-beam assisted adsorption on the Si(111) surface **21** (1970) 253
COAD, J. P. and J. C. RIVIÈRE, Auger spectroscopy of carbon on nickel . . **25** (1971) 609
COAD, J. P., Comments on "LLM versus LMM Auger transitions for the

light elements" by M. F. Chung and L. H. Jenkins **30** (1972) 687
COHEN, M., *see* SEWELL **29** (1972) 173
COLLINS, R. A., Silicon adsorption on tungsten field emitters **26** (1971) 624
COMRIE, C. M., *see* LAMBERT **27** (1971) 653
COMRIE, C. M., *see* WEINBERG **30** (1972) 299
COOMES, E. A., *see* GARDNER **26** (1971) 605
COOMES, E. A., *see* NIEHAUS **27** (1971) 256
COOPER, T. L., *see* BURKSTRAND **29** (1972) 663
CORCIOVEI, A., M. CROITORU and D. GRECU, Lattice distortion of an fcc crystal near a free surface **21** (1970) 109
CRISTESCU, M., *see* BACAL **26** (1971) 230
CROCE, P., G. DEVANT, M. G. SERE and M. F. VERHAEGHE, Thin film surface studies by X-ray reflection **22** (1970) 173
CROCKER, A. J., *see* EGERTON **27** (1971) 117
CROCKER, A. J., *see* HARRIS **30** (1972) 692
CROITORU, M., *see* CORVIOVEI **21** (1970) 109
CROUSER, L. C., *see* SWANSON **23** (1970) 1
CROWELL, A. D., Van der Waals potential for nitrogen interacting with graphite **24** (1971) 651
CUDERMAN, J. F., Cold surface ionization of fast K atoms on Ta and W ribbons **28** (1971) 569
CUTLER, P. H., *see* POLITZER **22** (1970) 277

DABIRI, A. E., T. J. LEE and R. E. STICKNEY, Spatial and speed distributions of H_2 and D_2 desorbed from a polycrystalline nickel surface. . . . **26** (1971) 522
DABIRI, A. E., *see* BRADLEY **29** (1972) 590
DABIRI, A. E., *see* BALOOCH **30** (1972) 483
DALMAI-IMELIK, G., J. C. BERTOLINI et J. ROUSSEAU, Commentaires sur "Auger spectroscopy of carbon on Ni" de J. P. Coad et J. C. Rivière . **27** (1971) 379
DALMAI-IMELIK, G., J. C. BERTOLINI et J. ROUSSEAU, Commentaires sur "Auger spectroscopy of carbon on Ni" de J. P. Coad et J. C. Rivière (E). **28** (1971) 657
DAMJANOVIC, A., *see* FREDLEIN **25** (1971) 261
DAVE, J. V. and F. F. ABRAHAM, Comparison of the potential energies for various packings of microcrystallites **26** (1971) 557
DAVIDOVIĆ, D. M., *see* JANEV **26** (1971) 142
DAVIDSON, S. G. and K. P. TAN, Surface field effects on Tamm states . . **27** (1971) 297
DE BERSUDER, L., V. HOFFSTEIN and J. LAUZIER, LEED rotation diagrams for Al **27** (1971) 338
DE BOER, J. H., *see* VAN DONGEN **28** (1971) 237
DE KLUIZENAAR, E. E., *see* MEYER **27** (1971) 88
DELAMARE, F. and G. E. RHEAD, Increase in the surface self-diffusion of copper due to the chemisorption of halogens **28** (1971) 267
DE LANGE, O. L., *see* OTTER, JR. **27** (1971) 273
DELCHAR, T. A., Oxygen chemisorption on copper single crystals . . . **27** (1971) 11
DEMESSEMAEKERS, E., H. VAN HOVE and A. NEYENS, The behaviour of a ZnO surface in a glow discharge **21** (1970) 189
DE RIBAUPIERRE, Y. et J.-P. BOREL, Etats d'adsorption à faible densité du potassium sur le cuivre **29** (1972) 265
DE SEGOVIA, J. L., *see* LÓPEZ-SANCHO **30** (1972) 419
DEVANT, G., *see* CROCE **22** (1970) 173
DE WAMES, R. E., *see* WOLFRAM **28** (1971) 45
DICKEY, J. M., H. H. FARRELL and M. STRONGIN, LEED studies of argon crystals on niobium (100) surface **23** (1970) 448
DINAN, J. H., L. K. GALBRAITH and T. E. FISCHER, Electronic properties of

clean cleaved {110}GaAs surfaces **26** (1971) 587
DOBROVOL'SKII, V. N., G. K. NINIDZE and O. S. ZINETS, Transverse surface impedance of germanium when generation of nonequilibrium carriers is caused by alternating current **22** (1970) 137
DOOLEY III, G. J., *see* HAAS **28** (1971) 645
DOREY, G., Monolayer adsorption of oxygen on aluminium **27** (1971) 311
DRECHSLER, M., *see* BONNETON **22** (1970) 426
DRECHSLER, M., *see* VU THIEN BINH **25** (1971) 348
DRECHSLER, M., *see* PICHAUD **26** (1971) 14
DUCHARME, A. R., *see* GERLACH **29** (1972) 317
DUCROS, P., *see* ABERDAM **27** (1971) 559
DUCROS, R., *see* LE GOFF **21** (1970) 136
DUCROS, R., *see* LE GOFF **21** (1970) 153
DUKE, C. B., *see* TUCKER **23** (1970) 411
DUKE, C. B., *see* TUCKER **24** (1971) 31
DUKE, C. B., G. E. LARAMORE, B. W. HOLLAND and A. M. GIBBONS, Isotropic-scatterer inelastic-collision-model analysis of low-energy electron diffraction from Al(100) and Al(110) **27** (1971) 523
DUKE, C. B., *see* TUCKER, JR. **29** (1972) 237
DUKE, C. B. and G. E. LARAMORE, Determination of the structure of adsorbed monolayers by the energy-averaging method: Al(100) **30** (1972) 659
DUNNING, W. J. and M. A. SAVVA, Secondary cleavage in muscovite mica . **27** (1971) 672

EDMONDS, T. and J. J. MCCARROLL, Comments on "Determination of nickel–molybdenum surface alloy structures using LEED" by L. G. Feinstein and E. Blanc **24** (1971) 353
EDWARDS, D. E., *see* BURKSTRAND **29** (1972) 663
EGERTON, R. F., Surface free energies of lead telluride. **24** (1971) 647
EGERTON, R. F. and A. J. CROCKER, The electrical effect of atomic hydrogen on lead telluride **27** (1971) 117
EHRHARDT, J. J., L. VINCENT, A. CASSUTO et J. P. MALENGE, Détermination de la distribution d'énergie de liaison de gaz adsorbés sur des films métalliques; application au système Pt–O_2 . . . . . **26** (1971) 490
ELICES, M., *see* YNDURAIN **29** (1972) 540
ELLIOT, A. G., *see* POPPA **24** (1971) 149
ELLIOTT, R. B. and F. R. O'NEILL, Photo-electron emission from abraded aluminium **21** (1970) 186
ELSON, J. M. and R. H. RITCHIE, The damping rate of plasma waves in condensed matter **30** (1972) 178
ERMOLOVICH, I. B., G. P. PEKA and M. K. SHEINKMAN, Effect of surface states on luminescent properties of CdS single crystals **24** (1971) 229
ERNST, L., On the field evaporation of silicon **21** (1970) 193
ERTL, G. und J. KÜPPERS, Monte-Carlo-Behandlung geordneter Adsorptionsphasen **21** (1970) 61
ERTL, G. and J. KÜPPERS, Adsorption an Einkristall-Oberflächen von Cu/Ni-Legierungen. I **24** (1971) 104
ESTRUP, P. J. and E. G. MCRAE, Surface studies by electron diffraction . . **25** (1971) 1
EZAWA, H., T. KURODA and K. NAKAMURA, Electrons and "surfons" in a semiconductor inversion layer **24** (1971) 654
EZAWA, H., S. KAWAJI, T. KURODA and K. NAKAMURA, Electron mobility in a semiconductor inversion layer; possible contribution from bulk phonons **24** (1971) 659
EZAWA, H., S. KAWAJI and K. NAKAMURA, Surfons and the electron mobility in a semiconductor inversion layer **27** (1971) 218

FADL, A. A., *see* STEFANAKOS **28** (1971) 221
FAIRBAIRN, W. M., The effect of bulk impurities on localized surface states . **25** (1971) 587
FARNSWORTH, H. E., *see* CHUNG. **22** (1970) 93
FARNSWORTH, H. E., *see* CHUNG. **24** (1971) 635
FARNSWORTH, H. E., *see* CHUNG. **25** (1971) 321
FARNSWORTH, H. E., *see* ZEHNER **30** (1972) 335
FARRELL, H. H., *see* DICKEY **23** (1970) 448
FASSAERT, D. J. M., H. VERBEEK and A. VAN DER AVOIRD, Molecular orbital models for hydrogen adsorption on different sites of a nickel crystal **29** (1972) 501
FEDORUS, A. G. and A. G. NAUMOVETS, Cesium on tungsten (011) face; structure and work function **21** (1970) 426
FEHRS, D. L., T. J. LEE, B. J. HOPKINS and R. E. STICKNEY, Comments on "An electron diffraction study of cesium adsorption on tungsten" . . **21** (1970) 197
FEHRS, D. L. and R. E. STICKNEY, Contact potential measurements of the adsorption of alkali metals on Ta(110) and W(100) crystals **24** (1971) 309
FEIBELMAN, P. J., Inclusion of dynamics in the ion–metal surface interaction I. **27** (1971) 438
FEINSTEIN, L. G., *see* MARGONINSKI **23** (1970) 458
FERRONI, E., *see* ROVIDA **30** (1972) 707
FIERMANS, L. and J. VENNIK, Auger electron emission spectroscopy of the V_2O_5(010) and V(100) surfaces. **24** (1971) 541
FINK, M., M. R. MARTIN and G. A. SOMORJAI, Comparison of backscattering intensities for low energy electrons from various surface atoms (H, Li, Be, C, O, Al, Si, S, V, Cr, Ni, Cu, Ag, Pt, Au) **29** (1972) 303
FISCHER, C. and E. HEASELL, The formation of thermal etch patterns during diffusion in indium antimonide **30** (1972) 592
FISCHER, T. E., *see* DINAN **26** (1971) 587
FISCHER, T. E., *see* GALBRAITH **30** (1972) 185
FLORES, F., F. GARCIA-MOLINER and G. NAVASCUES, Transport and free carrier electomagnetic phenomena in semiconductor boundary layers . **24** (1971) 61
FLORIO, J. V. and W. D. ROBERTSON, Phase transformations of the Si(111) surface **22** (1970) 459
FLORIO, J. V. and W. D. ROBERTSON, Structure and transformation characteristics of impurity stabilized phases on the Si(111) surface **24** (1971) 173
FONASH, S. J., *see* SHARMA **23** (1970) 30
FORBES. R. G., Field-ion imaging theory: on the visibility of adsorbates . **27** (1971) 659
FORD, R. R. and D. LICHTMAN, Ion desorption characteristics induced by electron interaction with carbon monoxide adsorbed on rhenium . . **26** (1971) 365
FORD, R. R. and D. LICHTMAN, Electron induced ion desorption of oxygen adsorbed on rhenium **25** (1971) 537
FORTES, M. A., The shape of field-evaporated metal tips **28** (1971) 95
FORTES, M. A., General properties of the field-ion image projection . . **28** (1971) 117
FORTNER, R. T. and R. G. MUSKET, Chemical effects on the Auger electron spectra of beryllium **28** (1971) 339
FOX, D. C., *see* KATZ. **28** (1971) 627
FOXON, C. T., *see* NEAVE. **29** (1972) 411
FRANCOMBE, M. H., *see* THOMAS **25** (1971) 357
FREDLEIN, R. A., A. DAMJANOVIC and J. O'M. BOCKRIS, Differential surface tension measurements at thin solid metal electrodes . . . **25** (1971) 261
FRENCH, T. M., A. E. MORGAN and G. A. SOMORJAI, On the need for higher gas pressures to obtain surface structures in low energy electron diffraction studies **22** (1970) 486
FREUDE, D., D. MÜLLER and H. SCHMIEDEL, On the line shape problem of proton resonance spectra of hydroxyl groups on solid surfaces . . . **25** (1971) 289
FROMHOLD, JR., A. T., Stress in dielectric contact layers on metals . . . **29** (1972) 396

FRYER, J. R., *see* BAIRD **28** (1971) 525
FUERSTENAU, D. W., *see* ROY **30** (1972) 487

GADZUK, J. W., A comparison between the Fermi–Thomas and quantum dielectric response of a metal surface to a static point charge . . . **23** (1970) 58
GALBRAITH, L. K., *see* DINAN **26** (1971) 587
GALBRAITH, L. K. and T. E. FISCHER, Temperature- and illumination-dependence of the work function of gallium arsenide **30** (1972) 185
GALLON, T. E., I. G. HIGGINBOTHAM, M. PRUTTON and H. TOKUTAKA, The (100) surfaces of alkali halides. I. The air and vacuum cleaved surfaces **21** (1970) 224
GALLON, T. E., *see* TOKUTAKA **21** (1970) 233
GALLON, T. E., *see* HIGGINBOTHAM **21** (1970) 241
GARCIA–MOLINER, F., *see* FLORES **24** (1971) 61
GARDNER, F. M., F. E. GIROUARD, W. L. BOECK and E. A. COOMES, Thermionic emission from single-crystal filaments **26** (1971) 605
GASSEN, H. J., *see* BOOTSMA **29** (1972) 297
GASSER, R. P. H., *see* WILLIAMS **25** (1971) 265
GASSER, R. P. H., T. N. MORTON, J. M. OVERTON and A. K. SZCZEPURA, Kinetic isotope effect in hydrogen adsorption on tungsten **28** (1971) 574
GATOS, H. C., *see* VALAHAS **26** (1971) 41
GATOS, H. C., *see* BALESTRA **26** (1971) 317
GATOS, H. C., *see* ŁAGOWSKI **27** (1971) 547
GATOS, H. C., *see* BALESTRA **28** (1971) 563
GATOS, H. C., *see* ŁAGOWSKI **29** (1972) 203
GATOS, H. C., *see* ŁAGOWSKI **29** (1972) 213
GATOS, H. C., *see* ŁAGOWSKI **30** (1972) 491
GATOS, H. C., *see* ŁAGOWSKI **30** (1972) 653
GAUBERT, C., *see* ABERDAM **27** (1971) 571
GAUCH, M., *see* MÉTOIS **30** (1972) 43
GEBHARDT, P., *see* WURZBACHER **21** (1970) 324
GENEQUAND, P., Photodesorption **25** (1971) 643
GENSHAW, M. A., *see* BRUSIC **29** (1972) 653
GEORGESCU, L. and R. MOLDOVAN, General conversation laws for the multi-component phase interface **22** (1970) 149
GERLACH, E., A note on screening at intrinsic semiconductor surfaces . . **23** (1970) 417
GERLACH, E., Estimate of surface energies of metals **26** (1971) 310
GERLACH, R. L., Electron binding energies of Ba from the secondary electron yield spectrum **28** (1971) 648
GERLACH, R. L. and A. R. DUCHARME, Inner shell ionization of surface atoms by electron impact **29** (1972) 317
GERMER, L. H., *see* ADAMS **22** (1970) 45
GERMER, L. H., *see* ADAMS **23** (1970) 419
GERMER, L. H., *see* ADAMS **26** (1971) 109
GERMER. L. H., *see* ADAMS **27** (1971) 21
GERSBACHER, JR., W. M. and T. O. WOODRUFF, Thickness effects in thin films **28** (1971) 489
GERSTEN, J. I. and E. G. MCRAE, Low-energy electron diffraction amplitudes **29** (1972) 483
GERVAIS, A., *see* ALLIÉ **25** (1971) 435
GIAEVER, I., A simple model of electron emision through adsorbed molecules **29** (1972) 1
GIBBONS, A. M., *see* HOLLAND **25** (1971) 561
GIBBONS, A. M., *see* HOLLAND **25** (1971) 576
GIBBONS, A. M., *see* DUKE **27** (1971) 523
GILLET, M., *see* CAHOREAU **26** (1971) 415

GIROUARD, F. E., *see* GARDNER **26** (1971) 605
GJOSTEIN, N. A., *see* WYNBLATT **22** (1970) 125
GJOSTEIN, N. A., *see* BONZEL **22** (1970) 216
GLASCOCK. JR., H. H., Thermionic emission from CaO in Ba vapor . . **29** (1972) 291
GOLDSTONE, P. D., *see* SINHAROY **30** (1972) 207
GOMER, R., Comment on: "Effect of atomic cores on electron tunneling through layers of neutral adsorbates" by A. Modinos **22** (1970) 471
GOMER, R., *see* KOHRT **24** (1971) 77
GOMER, R., *see* SCHRIEFFER **25** (1971) 315
GOMER, R., *see* LEWIS **26** (1971) 197
GOMES, W. P., *see* CARDON **27** (1971) 286
GOODMAN, F. O., Scattering of atoms by solid surfaces; critical review of the Lennard-Jones, Devonshire and Strachan theory of inelastic gas–surface interactions, and some improvements **24** (1971) 667
GOODMAN F. O., Review of the theory of the scattering of gas atoms by solid surfaces. **26** (1971) 327
GOODMAN, F. O., Scattering of atoms by solid surfaces; critical review of the Lennard-Jones, Devonshire and Strachan theory of inelastic gas–surface interactions, and some improvements (E) **26** (1971) 364
GOODMAN, F. O., Exponential and inverse-square attractive potentials in gas–surface interaction theory **27** (1971) 157
GOODMAN, F. O., Quantum-mechanical treatment of the one-phonon inelastic scattering of gas atoms in three dimensions by a simplified continuum model of a solid **30** (1972) 1
GOODMAN, F. O., Simple model for the velocity distribution of molecules desorbed from surfaces following recombination of atoms. . . . **30** (1972) 525
GOODRICH, R. S., *see* BAYUZICK **23** (1970) 225
GOSSICK, B. R., Electrical characteristics of a metal–semiconductor contact. I **21** (1970) 123
GOSSICK, B. R., Electrical characteristics of a metal–semiconductor contact. II **25** (1971) 465
GOSSICK, B. R., Electrical characteristics of a metal–semiconductor contact. III **28** (1971) 469
GRANT, J. T. and T. W. HAAS, A study of Ru(0001) and Rh(111) surfaces using LEED and Auger electron spectroscopy **21** (1970) 76
GRANT, J. T. and T. W. HAAS, Auger electron spectroscopy of Si . . . **23** (1970) 347
GRANT, J. T. and T. W. HAAS, Auger electron spectroscopy studies of carbon overlayers on metal surfaces **24** (1971) 332
GRANT, J. T., Some studies on the Ir (111) surface using LEED and Auger electron spectroscopy **25** (1971) 451
GRANT, J. T. and T. W. HAAS, A study of InAs (111) and $(\bar{1}\bar{1}\bar{1})$ surfaces using LEED and Auger electron spectroscopy **26** (1971) 669
GRECU, D., *see* CORCIOVEI **21** (1970) 109
GREEN, M., M. J. LEE, and P. R. SIMMONS, The adsorption of oxygen on clean chalcogenide glass surfaces **23** (1970) 409
GREEN, M., The surface structure of KCl and PbTe films grown on mica . **26** (1971) 549
GREENLER, R. G., *see* TOMPKINS **28** (1971) 194
GRENGA, H. E. and R. KUMAR, Hydrogen-ion microscopy of titanium . . **29** (1972) 447
GRØNLUND, F. and P. E. HØJLUND NIELSEN, Surface structures formed upon oxidation of the (111), (100), and (110) faces of copper . . . **30** (1972) 388
GUELTON, M., *see* BONNELLE **27** (1971) 375
GUESNE, E., C. SÉBENNE and M. BALKANSKI, Electronic surface properties of CdSe single crystals under vacuum or oxygen **24** (1971) 18
GUNDLACH, K. H. and J. HÖLZL, Logarithmic conductivity of Al–Al_2O_3–Al tunneling junctions produced by plasma- and thermal oxidation . **27** (1971) 125

GYULAI J., *see* MEYER **22** (1970) 263

HAAS, K. J., *see* KATZ **28** (1971) 627
HAAS, T. W., *see* GRANT **21** (1970) 76
HAAS, T. W., *see* GRANT **23** (1970) 347
HAAS, T. W., *see* GRANT **24** (1971) 332
HAAS, T. W., *see* GRANT **26** (1971) 669
HAAS, T. W., *see* THOMAS **28** (1971) 632
HAAS, T. W., S. THOMAS and G. J. DOOLEY III, Soft X-ray appearance potential spectroscopy in a display LEED system **28** (1971) 645
HAGSTRUM, H. D., *see* BECKER **30** (1972) 505
HALL, G. K. and C. H. B. MEE, The surface potential of oxygen on iron, cobalt and manganese **28** (1971) 598
HALL, P. G., *see* BROWN **30** (1972) 379
HALL, W. F., *see* WOLFRAM **28** (1971) 45
HAMILTON, J. F. and L. E. BRADY, A model for the AgBr(111) surface, based on the symmetry of nucleation sites for evaporated metal . . . **23** (1970) 389
HANEMAN, D., *see* HERON **21** (1970) 12
HANEMAN, D., *see* RIDGWAY **24** (1971) 451
HANEMAN, D., *see* MILLER **24** (1971) 639
HANEMAN, D., *see* RIDGWAY **26** (1971) 683
HANEMAN, D., *see* RUSSELL **27** (1971) 362
HANNUM, R. W., *see* HOLLAND **25** (1971) 561
HANNUM, R. W., *see* HOLLAND **25** (1971) 576
HARREIS, H. and G. HEILAND, Capacitance of metal contacts on clean semiconductor surfaces (ZnO and Si, surface states) **24** (1971) 643
HARRIS, J. J. and A. J. CROCKER, The effect of surface states on the transport coefficients of thin semiconductor films **30** (1972) 692
HARRIS, L. B., Reply to "Isosteric heat of adsorption on homogeneous and patchwise heterogeneous surfaces" **26** (1971) 667
HAUL, R., *see* BODDENBERG **22** (1970) 29
HAYMANN, P., Théorie dynamique de l'effet Auger **30** (1972) 536
HEASELL, E., *see* FISCHER **30** (1972) 592
HECKINGBOTTOM, R. and P. R. WOOD, LEED evidence for carbon contamination of the Si (311) surface **23** (1970) 437
HECKINGBOTTOM, R., The splitting of LEED beams with varying surface coverage **27** (1971) 370
HEILAND, G., *see* HARREIS **24** (1971) 643
HEINICKE, G. und H. HOFFMAN, Zur Wechselwirkung von Gasen an tribomechanisch bearbeiteten Nickeloberflächen **24** (1971) 484
HELLWIG, S. and J. H. BLOCK, Die Feldemission des Wolframs nach der Adsorption von Kohlenwasserstoffen **29** (1972) 523
HELM, R. F., *see* HENDERSON **30** (1972) 310
HENDERSON, R. C. and R. F. HELM, Silicon homoepitaxial thin films via silane pyrolysis: a HEED and Auger electron spectroscopy study . . **30** (1972) 310
HENRION, J. and G. E. RHEAD, LEED studies of the first states of deposition and melting of lead on low index faces of copper **29** (1972) 20
HENZLER, M., Texture of surfaces cleaned by ion bombardment and annealing **22** (1970) 12
HENZLER, M., The effect of oxygen on surface structure and surface states of cleaved germanium (111) faces **24** (1971) 209
HENZLER, M., The origin of surface states **25** (1971) 650
HERAS, J. M., *see* BORRAJO **28** (1971) 132
HERON, D. L. and D. HANEMAN, Two-centre theory of large surface unit unit cells on semiconductors **21** (1970) 12

HETRICK, R. E., *see* STEINRISSER **28** (1971) 607
HEUMANN, TH. und I. H. MOON, Sauerstoffadsorption auf Kupfer und Bestimmung des Rauhigkeitsfaktors **24** (1971) 370
HIGGINBOTHAM, I. G., *see* GALLON **21** (1970) 224
HIGGINBOTHAM, I. G., *see* TOKUTAKA **21** (1970) 233
HIGGINBOTHAM, I. G., T. E. GALLON, M. PRUTTON and H. TOKUTAKA, The (100) surfaces of alkali halides. III. Electron stimulated desorption and overall discussion **21** (1970) 241
HILL, G.E., I. MARKLUND, I., J. MARTINSON and B. J. HOPKINS, Simultaneous LEED and RHEED studies of the growth of zirconium on the tungsten (100) surface **24** (1971) 435
HIRABAYASHI, K., Intensity analysis of low-energy electron diffraction from Al (100) by simplified s–wave approximation **28** (1971) 621
HIRTH, J. P., *see* MUNIR **28** (1971) 357
HIRTH, J. P., *see* PILKINGTON **29** (1972) 363
HOFFMANN, H., *see* HEINICKE **24** (1971) 484
HOFFSTEIN, V. and D. S. BOUDREAUX, Calculation of complex band structures **21** (1970) 99
HOFFSTEIN, V., *see* DE BERSUDER **27** (1971) 338
HOINKES, H., H. NAHR and H. WILSCH, Reflection, diffraction and selective adsorption of atomic hydrogen on the (001) surface of LiF . . . **30** (1972) 363
HØJLUND NIELSEN, P. E., *see* GRØNLUND **30** (1972) 388
HOLCOMBE, JR., G. E., G. L. POWELL and R. E. CLAUSING, Low-energy electron diffraction and Auger emission spectroscopy studies of lithium hydride (110) surface **30** (1972) 561
HOLLAND, B. W., R. W. HANNUM and A. M. GIBBONS, Calculations based on the inelastic collision model for LEED. I. LiF (001) . . . **25** (1971) 561
HOLLAND, B. W., R. W. HANNUM, A. M. GIBBONS and D. P. WOODRUFF, Calculations based on the inelastic collission model for LEED. II. Ni (111) and (110) **25** (1971) 576
HOLLAND, B. W., *see* DUKE **27** (1971) 523
HOLLAND, B. W., A simple model for temperature effects in LEED . . **28** (1971) 258
HÖLZL, J., *see* JACOBI **26** (1971) 54
HÖLZL, J., *see* GUNDLACH **27** (1971) 125
HOOKER, M. P., *see* JACKSON **27** (1971) 197
HOOKER, M. P., *see* JACKSON **28** (1971) 373
HOPKINS, B. J., *see* FEHRS **21** (1970) 197
HOPKINS, B. J., *see* SARGOOD **22** (1970) 343
HOPKINS, B. J., *see* JOWETT **22** (1970) 392
HOPKINS, B. J. and S. USAMI, The surface potential of hydrogen on tungsten (100), (110) and (112) single crystal surfaces **23** (1970) 423
HOPKINS, B. J., *see* HILL **24** (1971) 435
HOPKINS, B. J., C. B. WILLIAMS and P. C. WILMER, Chemical and physical adsorption of oxygen on the (110) plane of tungsten **25** (1971) 633
HOPKINS, B. J., M. LEGGETT and G. D. WATTS, A RHEED study of the adsorption of oxygen, hydrogen, nitrogen and water vapour on the (100) face of tantalum **28** (1971) 581
HORGAN, A. M. and D. A. KING, Oxygen adsorption, reconstruction, and thin oxide film formation on clean metal surfaces: Ni, Fe, W and Mo . **23** (1970) 259
HORNE, D. E., *see* WINTERS **24** (1971) 587
HORYLEV, R. J., *see* MURR **26** (1971) 184
HORYLEV, R. J., *see* MURR **27** (1971) 383
HOUSTON, J. E. and R. L. PARK, Low-energy electron diffraction from imperfect structures **21** (1970) 209
HOUSTON, J. E. and R. L. PARK, LEED from statistical step models . . . **26** (1971) 269

HOUSTON, J. E., *see* PARK **26** (1971) 664
HREN, J. J., *see* SON **23** (1970) 177
HREN, J. J., A. J. W. MOORE and J. A. SPINK, Anomalous FIM images of tungsten **29** (1972) 331
HUNT, G. L. and I. M. RITCHIE, The effect of traces of iodine on the oxidation rate of aluminium **30** (1972) 475

IBRAHIM, M. M. and N. M. BASHARA, Ellipsometric study of 400 eV ion damage in silicon **30** (1972) 632
IBRAHIM, M. M. and N. M. BASHARA, Ellipsometric study of cleaning silicon by ion bombardment and heating in vacuum **30** (1972) 680
IGNATIEV, A., A. V. JONES and T. N. RHODIN, LEED investigations of xenon single crystal films and their use in studying the Ir(100) surface . **30** (1972) 573
ILLINGER, J. L. and D. RIVIN, Desorption of organic adsorbates from carbon. II. Determining kinetic parameters non-isothermally . . . **21** (1970) 169
INKSON, J. C., The electron–electron interaction near an interface . . . **28** (1971) 69
ISHII, S., *see* SUGATA **24** (1971) 612
ISHII, S., *see* SUGATA **24** (1971) 663

JABLONSKI, H. P., *see* WASSERMANN. **22** (1970) 69
JACKSON, A. G. and M. P. HOOKER, Auger-LEED investigation of Sn on Mo(100) **27** (1971) 197
JACKSON, A. G. and M. P. HOOKER, Auger/LEED investigation of the depostion of Al onto the Mo (110) surface **28** (1971) 373
JACOBI, K. und HÖLZL J., Auger-Elektronen-Emission dünner Kohlenstoff-Folien in Reflexion und Transmission **26** (1971) 54
JANEV, R. K., I. V. TERZIĆ and D. M. DAVIDOVIĆ, Transition rates of the resonant processes in Li^+ and Na^+ ion interaction with Li, W and Mo surfaces **26** (1971) 142
JÁNOSSY, I. and M. MENYHÁRD, LEED study of quartz crystals **25** (1971) 647
JENKINS, L. H. *see* CHUNG **22** (1970) 479
JENKINS, L. H. and M. F. CHUNG, LEED and Auger investigations of Cu(111) surface **24** (1971) 125
JENKINS L. H. and M. F. CHUNG, The energy spectrum of back-scattered electrons and characteristic loss and gain phenomena of the Cu(111) . **26** (1971) 151
JENKINS, L. H., *see* CHUNG **26** (1971) 649
JENKINS, L. H. and M. F. CHUNG, Auger and other characteristic energies in secondary electron spectra from Al surfaces **28** (1971) 409
JENKINS, L. H., *see* CHUNG **28** (1971) 637
JENNINGS, P. J. and E. G. MCRAE, Electron diffraction at crystal surfaces. IV. Computation of LEED intensities for "muffin-tin" models with application to tungsten (001) **23** (1970) 363
JENNINGS, P. J., Surface barrier effects in low–energy electron diffraction . **25** (1971) 513
JENNINGS, P. L., Computations of relativistic LEED intensities and spin-polarisations for tungsten (001) **26** (1971) 509
JENNINGS, P. J., A spin-dependent treatment of surface-state resonances in LEED **27** (1971) 221
JEZIOROWSKI, H., *see* KNÖZINGER **22** (1970) 111
JOHNSON, B. B., *see* BAKER **24** (1971) 572
JONA, F. and H. R. WENDT, Radioactive method for the determination of sticking coefficients: Ge on Ge (111) **24** (1971) 343
JONA, F., J. A. STROZIER, JR. and C. WONG, Re-examination of Al (110) with low-energy electron diffraction and Auger spectroscopy . . . **30** (1972) 225
JONES, A. V., *see* IGNATIEV **30** (1972) 573
JOWETT, C. W., *see* SARGOOD **22** (1970) 343

JOWETT, C. W. and B. J. HOPKINS, Work function changes due to the adsorption of chlorine, bromine and iodine on tungsten single crystal surfaces **22** (1970) 392
JOYCE, B. A. and J. H. NEAVE, An investigation of silcion–oxygen interactions using Auger electron spectroscopy **27** (1971) 499
JOYCE, B. A., *see* NEAVE **29** (1972) 411
JOYCE, B. A. and J. H. NEAVE, Reply to Comments on the interaction of oxygen with Si (111) surfaces **30** (1972) 710
JOYNER, R. W., C. S. MCKEE and M. W. ROBERTS, The adsorption of carbon monoxide on Cu (001) LEED and Auger emission studies . . 26 (1971) 303
JOYNER, R. W., C. S. MCKEE and M. W. ROBERTS, The interaction of hydrogen sulphide with Cu(001) **27** (1971) 279
JOYNER, R. W., *see* LANG **30** (1972) 440
JOYNER, R. W., *see* LANG **30** (1972) 454

KALKSTEIN D. and P. SOVEN, A Green's function theory of surface states **26** (1971) 85
KAMMLOTT, G. W., Some aspects of scanning electron microscopy. . . **25** (1971) 120
KASCHIEV, D., Nucleation at time-dependent supersaturation **22** (1970) 319
KASCHIEVA, S., *see* KASSABOV **21** (1970) 366
KASEMO, B., *see* ANDERSSON **25** (1971) 273
KASPERSMA, J. H., *see* VAN DONGEN **28** (1971) 237
KASSABOV, J., N. VELCHEV and S. KASCHIEVA, Influence of γ radiation on the surface states and hole mobility at the Si–SiO_2 interface **21** (1970) 366
KATO, S. and H. KOBAYASHI, LEED study of iron single crystal surfaces. . **27** (1971) 625
KATZ, M. J., D. C. FOX and K. J. HAAS, The effect of adsorbed water on the surface photovoltage of GaAs **28** (1971) 627
KAWAJI, S., *see* EZAWA **24** (1971) 659
KAWAJI, S., *see* EZAWA **27** (1971) 218
KERN, R., *see* MASSON **27** (1971) 463
KERN, R., A. MASSON et J. J. MÉTOIS, Migration brownienne de crystallites sur une surface et relation avec l'épitaxie. II. Partie théorique . . . **27** (1971) 483
KERN, R., *see* MÉTOIS **30** (1972) 43
KINDL, B., E. NEGRI and G. F. CEROFOLINI, Adsorption isotherms of noble gases on glasses **23** (1970) 299
KING, D. A., *see* HORGAN **23** (1970) 259
KING, D. A. and M. G. WELLS, Molecular beam investigation of adsorption kinetics on bulk metal targets: nitrogen on tungsten. **29** (1972) 454
KING, D. A., *see* YATES, JR. **30** (1972) 601
KISELEV, V. F., *see* KOZLOV **28** (1971) 395
KLEIN, R., Preparation of contiguous chemisorbed adlayers by sequential deposition and surface migration **29** (1972) 309
KLEIN, R., *see* SCHEER **30** (1972) 251
KLEINT, CH., Surface diffusion model of adsorption-induced field emission flicker noise. I. Theory **25** (1971) 394
KLEINT, CH., Surface diffusion model of adsorption-induced field emission flicker noise. II. Experiments **25** (1971) 411
KLEMPERER, D. F. and J. C. SNAITH, Roughness and surface potential in physisorption. **28** (1971) 209
KNÖZINGER, H. und H. JEZIOROWSKI, Das Adsorptionsverhalten von Thoriumoxid. I. Kinetik der Adsorption von Äthanol, Äthyläther und Wasser **22** (1970) 111
KOBAYASHI, H., *see* KATO **27** (1971) 625
KOHRT, C. and R. GOMER, The adsorption of CO on the (110) plane of tungsten **24** (1971) 77
KOLB, D. M. and J. D. E. MCINTYRE, Spectrophotometric determination of

the optical properties of an adsorbed oxygen layer on gold **28** (1971) 321
KOLBASOV, G. YA., *see* TYAGAI **28** (1971) 423
KOSTELITZ, M. et J. OUDAR, Etude thermodynamique et structurale de l'adsorption dans le système or–soufre **27** (1971) 176
KOZLOV, S. N., V. F. KISELEV and YU. F. NOVOTOTSKII-VLASOV, Investigation of long-term processes on a real germanium surface **28** (1971) 395
KRAUTZ, E., *see* SCHMIDT **26** (1971) 297
KRISHNASWAMY, S. V., *see* MÜLLER **23** (1970) 112
KRISHNASWAMY, S. V., *see* MCLANE **27** (1971) 367
KRUEGER, WM. H. and S. R. POLLACK, The initial oxidation of aluminum thin films at room temperature **30** (1972) 263
KRUEGER, WM. H. and S. R. POLLACK, Room temperature adsorption of water by aluminum thin films **30** (1972) 280
KUISL, M. und F. WILHELM, Untersuchungen an Zinndioxidschichten . . **22** (1970) 253
KÜPPERS, J., *see* ERTL **21** (1970) 61
KÜPPERS, J., *see* ERTL **24** (1971) 104
KURODA, T., *see* EZAWA **24** (1971) 654
KURODA, T., *see* EZAWA **24** (1971) 659
KUŠČER, I., Reciprocity in scattering of gas molecules by surfaces . . . **25** (1971) 225

LAGALLY, M. G., T. C. NGOC and M. B. WEBB, Consequences of the reciprocity theorem in low-energy electron diffraction **25** (1971) 444
ŁAGOWSKI, J. J., A. MORAWSKI and J. J. SOCHAŃSKI, Surface piezoresistance in germanium **23** (1970) 463
ŁAGOWSKI, J., *see* SOCHAŃSKI **25** (1971) 552
ŁAGOWSKI, J., *see* BALESTRA **26** (1971) 317
ŁAGOWSKI, J., C. L. BALESTRA and H. C. GATOS, Photovoltage inversion effect and its application to semiconductor surface studies: CdS . . **27** (1971) 547
ŁAGOWSKI, J., C. L. BALESTRA and H. C. GATOS, Determination of surface state parameters from surface photovoltage transients: CdS **29** (1972) 203
ŁAGOWSKI, J., C. L. BALESTRA and H. C. GATOS, Electronic characteristics of "real" CdS surfaces **29** (1972) 213
ŁAGOWSKI, J. and H. C. GATOS, Surface piezoelectric effect in non-centrosymmetric semiconductors: CdS **30** (1972) 491
ŁAGOWSKI, J., E. S. SPROLES, JR. and H. C. GATOS, Photovoltage inversion effect resulting from a continuous spectrum of surface states: ZnO . . **30** (1972) 653
LAMBERT, R. M., J. W. LINNETT and J. A. SCHWARZ, Adsorption of oxygen on molybdenum (111): effect of trace impurities **26** (1971) 572
LAMBERT, R. M., W. H. WEINBERG, C. M. COMRIE and J. W. LINNETT, LEED-Auger investigation of a stable carbide overlayer on a platinum (111) surface **27** (1971) 653
LAMBERT, R. M., *see* WEINBERG **30** (1972) 299
LAMY, C. et P. MALATERRE, Caractérisation des sites réactionnels d'une électrode en fonctionnement par résonance paramagnétique électronique: application à des électrodes de charbons platinés **22** (1970) 325
LANG, B., R. W. JOYNER and G. A. SOMORJAI, Low energy electron diffraction studies of high index crystal surfaces of platinum **30** (1972) 440
LANG, B., R. W. JOYNER and G. A. SOMORJAI, Low energy electron diffraction studies of chemisorbed gases on stepped surfaces of platinum . . **30** (1972) 454
LARAMORE, G. E., *see* DUKE **27** (1971) 523
LARAMORE, G. E., *see* DUKE **30** (1972) 659
LAU, W. Y. and C. M. BURNS, A pendent drop–sessile drop approach for the determination of surface tension **30** (1972) 478
LAU, W. Y. and C. M. BURNS, Effective surface driving force causing liquid to spread on solid surfaces **30** (1972) 497

LAUZIER, J., *see* DE BERSUDER **27** (1971) 338
LAWRENKO, W. A., *see* ROCHLENKO **24** (1971) 164
LEA, C. and C. H. B. MEE, Thermal etching of (100) and (113) oriented faces of tungsten single crystals **25** (1971) 332
LEE, M. J., *see* GREEN **23** (1970) 409
LEE, T. J., *see* FEHRS **21** (1970) 197
LEE, T. J., *see* DABIRI **26** (1971) 522
LEFEVRE, B. G., Field-ion studies of microstructures and transformations in long-range-ordered alloys **23** (1970) 144
LEGGETT, M., *see* HOPKINS **28** (1971) 581
LEGGETT, M. R. and R. A. ARMSTRONG, A study of hydrogen adsorption on a (100) tungsten surface using a simple HEED system **24** (1971) 404
LE GOFF, P. et R. DUCROS, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. I. Exposé du modèle **21** (1970) 136
LE GOFF, P. et R. DUCROS, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et oxydation d'un hydrocarbure. II. Application aux réactions de l'éthylène sur rhénium et sur tungstène **21** (1970) 153
LEINFELDER, K., Comments on "Surface energy of liquids isolated in narrow capillaries" by W. J. O'Brien **23** (1970) 427
LENGLART, P., *see* ALLAN. **30** (1972) 641
LEVINE, J. D., A. WILLIS, W. R. BOTTOMS and P. MARK, Correlation of electronic, LEED, and Auger diagnostics on ZnO surfaces **29** (1972) 144
LEWIS, B., Migration and capture processes in heterogeneous nucleation and growth. I. Theory **21** (1970) 273
LEWIS, B., Migration and capture processes in heterogeneous nucleation and growth. II. Comparison with experiment **21** (1970) 289
LEWIS, R. T. and R. GOMER, Adsorption studies in the field ion microscope with argon imaging **26** (1971) 197
LICHTMAN, D., *see* FORD **25** (1971) 537
LICHTMAN, D., *see* FORD **26** (1971) 365
LICHTMAN, D., *see* PEAVEY **27** (1971) 649
LINFORD, R. G. and L. A. MITCHELL, Interplanar potential functions for calculating surface energies and cohesive stress **27** (1971) 142
LINNETT, J. W., *see* LAMBERT. **26** (1971) 572
LINNETT, J. W., *see* LAMBERT. **27** (1971) 653
LINNETT, J. W., *see* WEINBERG **30** (1972) 299
LINTZ, H. G., *see* OLLIS **26** (1971) 21
LINTZ, H. G. et A. PENTENERO, Etude des interactions chimiques gaz–solide par la technique du faisceau moléculaire: nouvelle interprétation de la réflexion d'un faisceau d'hélium sur une surface de rhénium en présence d'oxygène **30** (1972) 499
LITZMAN, O. and J. CELÝ, The Raman surface scattering in crystals . . . **21** (1970) 390
LITZMAN, O. and J. CELÝ, The Raman surface scattering in crystals (E) . . **30** (1972) 250
LIVINGSTON, H. K. and C. S. SWINGLEY, Contact angles in controlled atmospheres: some theoretical considerations **24** (1971) 625
LÓPEZ-SANCHO, J. M. and J. L. DE SEGOVIA, Adsorption kinetics and electron desorption of O_2 on polycrystalline tungsten. **30** (1972) 419
LOS, J., *see* SMITH **22** (1970) 411
LOWSON, R. T., *see* ASH **21** (1970) 265
LUKEŠ, F., Oxidation of Si and GaAs in air at room temperature. . . . **30** (1972) 91

MACNAIR, D., *see* BALL **30** (1972) 69
MADEY, T. E., *see* YATES, JR.. . . . . **28** (1971) 437

MADEY, T. E., Adsorption and displacement processes on W(111) involving CH_4, H_2, and O_2 . . . . . **29** (1972) 571
MADIX, R. J. and J. A. SCHWARZ, Chemical relaxation molecular beam studies of reactive gas–solid scattering. I. Reaction of silicon and germanium with molecular chlorine **24** (1971) 264
MADIX, R. J., R. PARKS, A. A. SUSU and J. A. SCHWARZ, Chemical relaxation molecular beam studies of reactive gas–solid scattering. II. Reaction of ozone with heated germanium surfaces **24** (1971) 288
MAIRE, G. L. C., *see* BAKER **24** (1971) 572
MALATERRE, P., *see* LAMY . . . . . **22**(1970) 325
MALENGE, J. P., *see* EHRHARDT **26** (1971) 490
MANCINI, N. and E. RIMINI, Annealing of polycrystalline and Au–Ag thin films **22** (1970) 357
MANSON, R. and V. CELLI, Inelastic surface scattering of non-penetrating particles **24** (1971) 495
MARGONINSKI, Y. and L. G. FEINSTEIN, LEED patterns and electrical conductance of gold plated germanium surfaces **23** (1970) 458
MARGONINSKI, Y., The influence of inelastic electron processes on LEED beam intensities during adsorption studies **29** (1972) 355
MARK, P., Methods of determining surface state energies **25** (1971) 192
MARK, P., *see* BAIDYAROY **28** (1971) 517
MARK, P., *see* LEVINE **29** (1972) 144
MARK, P., *see* BAIDYAROY **29** (1972) 165
MARK, P., *see* BAIDYAROY **30** (1972) 53
MARKLUND, I., *see* HILL **24** (1971) 435
MARTIN, M. R., *see* FINK. **29** (1972) 303
MARTINSON, J., *see* HILL **24** (1971) 435
MASON, R., *see* CLARKE **30** (1972) 553
MASSON, A., J. J. MÉTOIS et R. KERN, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. I. Partie expérimentale . . **27** (1971) 463
MASSON, A., *see* KERN **27** (1971) 483
MASSON, A., *see* MÉTOIS **30** (1972) 43
MASUI, K., *see* SUGATA **24** (1971) 612
MATTHEWS, L. D., Radiotracer and photoemission studies of CO chemisorbed on Mo(100) **24** (1971) 248
MATYSIK, K. J., A hydrogen superstructure on W(110) **29** (1972) 324
MAY, J. W., *see* ADAMS **22** (1970) 45
MAY, J. W., *see* CARROLL. **29** (1972) 60
MAY, J. W. and C. E. CARROLL, Ionic monolayers on metals. II. Neutral mixed layers and surface reconstruction **29** (1972) 85
MAYER, J. W., *see* MEYER **22** (1970) 263
MAZE, C. and G. BURNET, Modifications of a non-linear regression technique used to calculate surface tension from sessile drops **24** (1971) 335
MAZE, C. and G. BURNET, Estimation of non-equilibrium surface tension . **27** (1971) 411
MAZE, C. and G. BURNET, Estimation of non-equilibrium surface tension (E). **30** (1972) 716
MAZUMDAR, A. K. and H.-W. WASSMUTH, Mass-spectrometric study of the chemisorption of oxygen on tungsten under transient and steady-state desorption conditions **30** (1972) 617
MCCARROLL, B., *see* BENNETT **24** (1971) 191
MCCARROLL, B. and R. P. MESSMER, A molecular orbital approach to chemisorption. III. Atomic H and O on graphitic BN **27** (1971) 451
MCCARROLL, J. J., *see* EDMONDS. **24** (1971) 353
MCCORMACK, P. D., A theory of surface tension based on the interaction between orbiting molecules **26** (1971) 375

McIntyre, J. D. E. and D. E. Aspnes, Differential reflection spectroscopy of very thin surface films **24** (1971) 417
McIntyre, J. D. E., *see* Kolb **28** (1971) 321
McKee, C. S., *see* Joyner **26** (1971) 303
McKee, C. S., *see* Joyner **27** (1971) 279
McKinley, J. D., *see* Scheer **30** (1972) 251
McKinney, J. T., *see* Brenner **23** (1970) 88
McKinstry, D., An examination of field evaporation theory **29** (1972) 37
McLane, S. B., *see* Müller **23** (1970) 112
McLane, S. B., E. W. Müller and S. V. Krishnaswamy, Time dependence of field ionization following the evaporation pulse in the atomprobe FIM **27** (1971) 367
McRae, E. G., *see* Jennings **23** (1970) 363
McRae, E. G., *see* Estrup **25** (1971) 1
McRae, E. G., Surface-state resonances in low-energy electron diffraction . **25** (1971) 491
McRae, E. G. and G. H. Wheatley, Observation of electron reflection at tungsten (001) surface in the energy range 1–10 eV **29** (1972) 342
McRae, E. G , *see* Gersten **29** (1972) 483
Mee, C. H. B., *see* Lea **25** (1971) 332
Mee, C. H. B., *see* Hall **28** (1971) 598
Meek, R. L., n^+ Silicon–electrolyte interface capacitance **25** (1971) 526
Menyhárd, M., *see* Jánossy **25** (1971) 647
Merrill, R. P. and D. L. Smith, The scattering of deuterium molecular beams from graphite overgrowths on platinum crystals **21** (1970) 203
Messmer, R. P., *see* Bennett **24** (1971) 191
Messmer, R. P., *see* McCarroll **27** (1971) 451
Métois, J. J., *see* Masson **27** (1971) 463
Métois, J. J., *see* Kern **27** (1971) 483
Métois, J. J., M. Gauch, A. Masson et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. III. Cas de l'aluminium sur KCl; précisions sur le mécanisme de glissement **30** (1972) 43
Meyer, F., E. E. De Kluizenaar and G. A. Bootsma, Ellipsometry and the clean surfaces of silicon and germanium **27** (1971) 88
Meyer, F., Ellipsometric study of adsorption complexes on silicon . . . **27** (1971) 107
Meyer, O., J. Gyulai and J. W. Mayer, Analysis of amorphous layers on silicon by backscattering and channeling effect measurements . . . **22** (1970) 263
Michel, J. M., *see* Tardif **26** (1971) 255
Mileshkina, N. V. and R. Z. Bakhtizin, Oxyygen adsorption on the atomically clean surface of germanium field emitter **29** (1972) 644
Miller, D. J. and D. Haneman, Carbon EPR signal from vacuum heated surfaces **24** (1971) 639
Miller, W. A., *see* Sang **28** (1971) 349
Mitchell, D. F., *see* Sewell **29** (1972) 173
Mitchell, L. A., *see* Lingford **27** (1971) 142
Modinos, A., Further remarks on elctron tunneling through layers of neutral adsorbates **22** (1970) 473
Moldovan, R., *see* Georgescu **22** (1970) 149
Mönch, W., On metal–semiconductor surface barriers **21** (1970) 443
Moon, I. H., *see* Heumann **24** (1971) 370
Moore, A. J. W., *see* Hren **29** (1972) 331
Morabito. J. M., *see* Sparnaay **21** (1970) 178
Morawski, A., *see* Łagowski **23** (1970) 463
Morawski, A., *see* Sochański **25** (1971) 552
Morgan, A. E., *see* French **22** (1970) 486
Morrison, S. R., Measurement of surface state energy levels of one-equiva-

lent adsorbates on ZnO **27** (1971) 586
MORTON, T. N., *see* GASSER **28** (1971) 574
MULARIE, W. M. and W. T. PERIA, Deconvolution techniques in Auger electron spectroscopy **26** (1971) 125
MÜLLER, A., *see* PICHAUD **26** (1971) 14
MÜLLER, D., *see* FREUDE **25** (1971) 289
MÜLLER, E. W., S. V. KRISHNASWAMY and S. B. MCLANE, Atom-probe FIM analysis of the interaction of the imaging gas with the surface . . **23** (1970) 112
MÜLLER, E. W., *see* MCLANE **27** (1971) 367
MUNIR, Z. A., L. S. SEACRIST and J. P. HIRTH, Morphology of thermally etched basal surfaces of cadmium selenide. **28** (1971) 357
MURR, L. E., R. J. HORYLEV and G. I. WONG, Measurement of absolute interfacial free energies in a NiCr alloy. **26** (1971) 184
MURR, L. E., R. J. HORYLEV and G. I. WONG, Measurement of absolute interfacial free energies in a NiCr alloy (E) **27** (1971) 383
MUSKET, R. G., Auger electron spectroscopy study of electron-impact desorption **21** (1970) 440
MUSKET, R. G., *see* FORTNER **28** (1971) 339

NADRCHAL, J., *see* BARTOŠ **22** (1970) 290
NAHR, H., *see* HOINKES **30** (1972) 363
NAKAMURA, K., *see* EZAWA **24** (1971) 654
NAKAMURA, K., *see* EZAWA **24** (1971) 659
NAKAMURA, K., *see* EZAWA **27** (1971) 218
NAKAYAMA, K., *see* ONO **26** (1971) 313
NAUMOVETS, A. G., *see* FEDORUS **21** (1970) 426
NAVASCUES, G., *see* FLORES **24** (1971) 61
NEAVE, J. H., *see* JOYCE **27** (1971) 499
NEAVE, J. H., C. T. FOXON, and B. A. JOYCE, The dependence of Auger electron yield on primary beam energy at normal and glancing incidence **29** (1972) 411
NEAVE, J. H., *see* JOYCE **30** (1972) 710
NEGRI, E., *see* KINDL **23** (1970) 299
NENOW, D., *see* PAVLOVSKA **27** (1971) 211
NETTEN, A. and A. H. BOONSTRA, Three-step adsorption on hydrogen sulphide at about – 120 °C on vapour-deposited lead monoxide layers . . **27** (1971) 77
NEYENS, A., *see* DEMESSEMAEKERS **21** (1970) 189
NGOC, T. C., *see* LAGALLY **25** (1971) 444
NGUYEN, T. T. A., *see* AL KHOURY NEMEH. **30** (1972) 697
NIEHAUS, W. C. and E. A. COOMES, Surface-barrier analysis for niobium and tantalum and tantalum-on-niobium from periodic deviations in the thermionic Schottky effect **27** (1971) 256
NINIDZE, G. K., *see* DOBROVOL'SKII **22** (1970) 137
NISHIKAWA, O. and K. D. RENDULIC, Some FIM observations on gold-welding of metals **26** (1971) 677
NOVOTSKII-VLASOV, YU, F., *see* KOZLOV **28** (1971) 395

O'BRIEN, W. J., Reply to the Comments of K. Leinfelder on "Surface energy of liquids isolated in narrow capillaries" **23** (1970) 428
O'BRIEN, W. J., Anomalous behavior of liquids in isolated contact with solids **25** (1971) 298
OKUYAMA, F., Electron microscopic observation of the shape of field emission cathode tips **22** (1970) 1
OKUYAMA, F., Preliminary study of KCl by field-emission microscopy . . **27** (1971) 635
OLLIS, D. F. and M. BOUDARS, Surface and bulk carburization of tungsten single crystals. **23** (1970) 320

OLLIS, D. F., H. G. LINTZ, A. PENTENERO and A. CASSUTO, Study of gas–solid chemical interactions by noble gas molecular beams. IV. Adsorption states and oxidation of molybdenum and rhenium **26** (1971) 21
O'NEILL, F. R., *see* ELLIOTT **21** (1970) 186
ONO, M., Y. TAKASU, K. NAKAYAMA and T. YAMASHINA, Auger spectroscopy study on copper–nickel alloy surfaces related to the catalysis . **26** (1971) 313
OPPERMAN, G., *see* BODDENBERG. **22** (1970) 29
OUDAR, J., *see* KOSTELITZ **27** (1971) 176
OUYANG, S., *see* VOOK **29** (1972) 277
OTOONI, M. A., *see* VOOK. **29** (1972) 277
OTTER, JR., F. A., H. C. ABBINK and O. L. DE LANGE, Possibility of a surface-stabilized compound of Au and Si on Si surfaces **27** (1971) 273
OVERTON, J. M., *see* GASSER **28** (1971) 574

PAGE, T. F. and B. RALPH, The direct observation of single slip steps on iridium **23** (1970) 211
PAIK, W. and J. O'M. BOCKRIS, The effect of electromodulation upon ellipsometric measurements of adsorption in the double layer **27** (1971) 191
PAIK, W. and J. O'M. BOCKRIS, Exact ellipsometric measurement of thickness and optical properties of a thin light-absorbing film without auxiliary measurements **28** (1971) 61
PALMBERG, P. W., Physical adsorption of xenon on Pd(100) **25** (1971) 598
PALMBERG, P. W., *see* WOLFRAM **28** (1971) 45
PAPAGEORGOPOULOS, C. A., *see* CHEN **21** (1970) 377
PAPAGEORGOPOULOS, C. A., *see* CHEN **26** (1971) 499
PARK, R. L., *see* HOUSTON **21** (1970) 209
PARK, R. L., *see* HOUSTON **26** (1971) 269
PARK, R. L. and J. E. HOUSTON, Appearance potential spectroscopy on an austere budget **26** (1971) 664
PARKS, R., *see* MADIX. **24** (1971) 288
PAVLOVSKA, A. and D. NENOW, Experimental investigation of the surface melting of equilibrium form faces of diphenyl **27** (1971) 211
PEAVEY, J. and D. LICHTMAN, Photon induced desorption using synchrotron radiation **27** (1971) 649
PEKA, G. P., *see* ERMOLOVICH **24** (1971) 229
PENTENERO, A., *see* OLLIS. **26** (1971P 21
PENTENERO, A., *see* LINTZ **30** (1972) 499
PERDEREAU, J. and G. E. RHEAD, LEED studies of adsorption on vicinal copper surfaces **24** (1971) 555
PERDEREAU, M., Emploi quantitatif de la spectroscopie Auger; étalonnage de la méthode **24** (1971) 239
PERIA, W. T., *see* MULARIE **26** (1971) 125
PEROVIĆ, B., *see* TERZIĆ **21** (1970) 86
PHILLIPS, J. M., *see* WARD **25** (1971) 379
PICHAUD, M., A. MÜLLER and M. DRECHSLER, Temperature distribution along metal tips (for field emission microscopy and the study of surface phenomena) **26** (1971) 14
PILKINGTON, G. and J. P. HIRTH, Epitaxial deposition of silver on molybdenite **29** (1972) 363
PIQUET, A., *see* VU THIEN BINH **25** (1971) 348
POLACEK, K. A., *see* WASSERMAN **28** (1971) 77
POLITZER, B. A. and P. H. CUTLER, A model calculation of field emission from 3d bands in nickel **22** (1970) 277
POLLACK, S. R., *see* KRUEGER **30** (1972) 263
POLLACK, S. R., *see* KRUEGER **30** (1972) 280

Poppa, H. and A. G. Elliot, The surface composition of mica substrates . **24** (1971) 149
Powell, G. L., *see* Holcombe, Jr. **30** (1972) 561
Presland, A. E. B., G. L. Price and D. L. Trimm, Hillock formation by surface diffusion on thin silver films **29** (1972) 424
Presland, A. E. B., G. L. Price and D. L. Trimm, The role of microstructure and surface energy in hole growth and island formation in thin silver films **29** (1972) 435
Preuss, E., Field-effect changes of the galvanomagnetic properties of a semiconductor. **22** (1970) 187
Preuss, E., Field-effect at indium antimonide in a magnetic field. . . . **24** (1971) 515
Price, G. L., *see* Presland **29** (1972) 424
Price, G. L., *see* Presland **29** (1972) 435
Pritchard, J., *see* Chesters **28** (1971) 460
Propst, F. M., *see* Burkstrand. **29** (1972) 663
Prutton, M., *see* Gallon **21** (1970) 224
Prutton, M., *see* Tokutaka **21** (1970) 233
Prutton, M., *see* Higginbotham **21** (1970) 241
Pyatigorskii, G. M., Thresholds and hysteresis of surface ionization under nonuniform conditions **24** (1971) 255

Quinto, D.T. and W. D. Robertson, Identification of Auger spectra from aluminum. **27** (1971) 645
Quinto, D. T., V. S. Sundaram W. D. Robertson, Auger spectra of copper–nickel alloys. **28** (1971) 504

Ralph, B., The metallurgical applications of the field-ion microscope . . **23** (1970) 130
Ralph, B., *see* Page **23** (1970) 211
Ramsey, J. A., *see* Arnott **28** (1971) 1
Rao, P. V. S. and J. T. Waber, Surface field analysis of splitting of orbitals of atoms and ions approaching a metal surface **28** (1971) 299
Rao, S. R., Thermodynamic analysis of ethyl xanthate adsorbed at galena surface **21** (1970) 413
Reale, C., Structural characteristics of vacuum deposited discontinuous nickel films **22** (1970) 19
Reid, R. J., LEED studies on the low index faces of copper. I. The room temperature intensity–energy spectra **29** (1972) 603
Reid, R. J., LEED studies on the low index faces of copper. II. The effects of temperature on the intensity–energy spectra **29** (1972) 623
Reisner, Th., *see* Schmidt **26** (1971) 297
Rendulic, K. D., A comparison between FIM and LEED studies of surface reconstruction. **21** (1970) 401
Rendulic, K. D., *see* Nishikawa **26** (1971) 677
Rendulic, K. D., Measurements on field adsorption of neon and helium field ionization of a helium–neon mixture **28** (1971) 285
Reuter, W., Electron probe microanalysis **25** (1971) 80
Rhead, G. E., Reply to Comment of H. P. Bonzel and N. A. Gjostein on "On surface diffusion and the existence of two-dimensional liquids" . **22** (1970) 223
Rhead, G. E., *see* Perdereau **24** (1971) 555
Rhead, G. E., *see* Delamare **28** (1961) 267
Rhead, G. E., *see* Henrion **29** (1972) 20
Rhodin, T. N., *see* Ignatiev. **30** (1972) 573
Riddell, E. V., *see* Baird **28** (1971) 525
Ridgway, J. W. T. and D. Haneman, Auger spectra and LEED patterns from vacuum cleaved silicon crystals with calibrated deposits of iron . **24** (1971) 451
Ridgway, J. W. T. and D. Haneman, Auger spectra and LEED patterns

from nickel deposits on cleaved silicon **26** (1971) 683
RIEDER, K. H., Vibrational surface thermodynamic functions of magnesium oxide **26** (1971) 637
RIMINI, E., *see* MANCINI **22** (1970) 357
RITCHIE, I. M. and R. K. TANDON, Some doping studies on the oxidation of zinc in the temperature range 200–390 °C **22** (1970) 199
RITCHIE, I. M., Logarithmic kinitics and surfaces controlled metal oxidation reactions. **23** (1970) 443
RITCHIE, I. M., *see* HUNT. **30** (1972) 475
RITCHIE, R. H., *see* ELSON **30** (1972) 178
RIVIÈRE, J. C., *see* COAD **21** (1970) 253
RIVIÈRE, J. C., *see* BISHOP. **24** (1971) 1
RIVIÈRE, J. C., *see* COAD **25** (1971) 609
RIVIN, D., *see* ILLINGER **21** (1970) 169
RIWAN, R., La diffusion du soufre vers la face (110) du nickel **27** (1971) 267
ROBERTS, M. W., *see* JOYNER. **26** (1971) 303
ROBERTS, M. W., *see* JOYNER. **27** (1971) 279
ROBERTSON, W. D., *see* FLORIO **22** (1970) 459
ROBERTSON, W. D., *see* FLORIO **24** (1971) 173
ROBERTSON, W. D., *see* QUINTO **27** (1971) 645
ROBERTSON, W. D., *see* QUINTO **28** (1971) 504
ROBERTSON, W. D., *see* ZIMMER **29** (1972) 230
ROCHLENKO, A. V. and W. A. LAWRENKO, Über den Zusammenhang zwischen Energieadsorption und Rekombinationskoeffizient von Gasatomen auf der Oberfläche von Festkörpern **24** (1971) 164
RÖLLGEN, F. W. and H. D. BECKEY, Surface reactions induced by field ionization of organic molecules **23** (1970) 69
RÖLLGEN, F. W. and H. D. BECKEY, Field induced chemisorption and promoted field ionization **26** (1971) 100
RÖLLGEN, F. W. und H. D. BECKEY, Feld- und Oberflächenreaktionen des Wassers **27** (1971) 321
ROSENBLATT, G. M., *see* BRUMBACH. **29** (1972) 555
ROUSSEAU, J., *see* DALMAI-IMELIK **27** (1971) 379
ROUSSEAU, J., *see* DALMAI-IMELIK **28** (1971) 657
ROUX, H., *see* VU THIEN BIHN **25** (1971) 348
ROVIDA, G., E. ZANAZZI and E. FERRONI, On the interaction of oxygen with Si(111) surfaces. **30** (1972) 707
ROY, P. and D. W. FUERSTENAU, The effect of doping on the point of zero of charge of alumina. **30** (1972) 487
RUSSELL, G. J. and D. HANEMAN, Oxygen adsorption on vacuum cleaved GaAs at liquid nitrogen temperatures by LEED **27** (1971) 362
RYE, R. R. and B. D. BARFORD, Flash desorption of hydrogen on tungsten (211) **27** (1971) 667

SACHTLER, W. M. H., Comments on: "On the demetallization effect of chemisorption" by Z. Bastl **22** (1970) 468
SACHTLER, W. M. H., *see* BOUWMAN **24** (1971) 140
SACHTLER, W. M. H., *see* BOUWMAN **24** (1971) 350
SACHTLER, W. M. H., *see* VAN OIRSCHOT **27** (1971) 611
SACHTLER, W. M. H., *see* VAN OIRSCHOT **29** (1972) 189
SALMERÓN, M. and A. M. BARO, Experimental observation of chemical shifts in Auger spectrum from surface layers of SiO_2 during electron bombardment **29** (1972) 300
SANCIER, K. M., ESR investigation of photodamage of zinc oxide powders . **21** (1970) 1
SANG, H. and W. A. MILLER, On surface energy calculations using the pair-

wise bonding model **28** (1971) 349
SARGOOD, A. J., C. W. JOWETT and B. J. HOPKINS, A relationship between surface potential and electronegativity for adsorption on tungsten single crystals. . . . . **22**(1970) 343
SATO, H. and S. SHINOZAKI, Interfacial energy as a factor in controlling epitaxial behavior **22** (1970) 229
SATO, M., Saturated state of hydrogen on tungsten at room temperature . **29** (1972) 667
SAVVA, M. A., *see* DUNNING **27** (1971) 672
SCHEER, M. D., R. KLEIN and J. D. MCKINLEY, Halogens adsorbed on molybdenum: their surface lifetimes and sedorption kinetics . . . **30** (1972) 251
SCHMID, T. E. and R. W. BALLUFFI, Formation and migration of artifact vacancies induced on gold surfaces by neon field ion microscopy. . . **28** (1971) 32
SCHMIDT, L. D., *see* CLAVENNA **22** (1970) 365
SCHMIDT, L. D., *see* YONEHARA **25** (1971) 238
SCHMIDT, L. D., *see* TAMM **26** (1971) 286
SCHMIDT, W., TH. REISNER and E. KRAUTZ, Field ion microscopic observation of interaction phenomena of neon atoms with platinum and platinum–gold alloy surfaces. **26** (1971) 297
SCHMIEDEL, H., *see* FREUDE **25** (1971) 289
SCHOLBERG, H. M., Effect of curvature on the thermodynamics of surfaces . **28** (1971) 229
SCHRENK, G. L., *see* SHARMA. **23** (1970) 30
SCHRIEFFER, J. R. and R. GOMER, Induced covalent bond mechanism of chemisorption **25** (1971) 315
SCHWARZ, J. A., *see* MADIX **24** (1971) 264
SCHWARZ, J. A., *see* MADIX **24** (1971) 288
SCHWARZ, J. A., *see* LAMBERT **26** (1971) 572
SCHWOEBEL, R. L., *see* BLAKELY **26** (1971) 321
SEACRIST, L. S., *see* MUNIR **28** (1971) 357
SEAH, M. P., Identification of surface plasmons excited in that flat region of a single crystal surface monitored by LEED **24** (1971) 357
SÉBENNE, C., *see* GUESNE **24** (1971) 18
SEIDMAN, D. N., *see* CHEN **26** (1971) 61
SEIDMAN, D. N., *see* CHEN **27** (1971) 231
SEIDMAN, D. N., *see* AST **28** (1971) 19
SEN, R. K., *see* BOCKRIS **30** (1972) 237
SERE, M. G., *see* CROCE **22** (1970) 173
SEWELL, P. B., D. F. MITCHELL and M. COHEN, A kinetic study of the initial oxidation of a Ta(110) surface using oxygen Kα X-ray emission . . **29** (1972) 173
SEYMOUR, R. C. and J. C. WOOD, Paramagnetic gas adsorption **27** (1971) 605
SHAPPIR, J., Determination of the surface barrier height by combined measurements of surface photovoltage and field effect **26** (1971) 545
SHARMA, S. P., S. J. FONASH and G. L. SCHRENK, The electron transfer process in field ionization **23** (1971) 30
SHEINKMAN, M. K., *see* ERMOLOVICH **24** (1971) 229
SHINOZAKI, S., *see* SATO **22** (1970) 229
SIMMONS, P. R., *see* GREEN **23** (1970) 409
SINHAROY, S., R. M. STERN and P. D. GOLDSTONE, Beam threshold and surface resonance effects in low energy electron diffraction from Ni(100) **30** (1972) 207
SLATER, R. R., Surface Madelung potentials in electron spectroscopy . . **23** (1970) 403
SMITH, A. W., *see* WEI **27** (1971) 681
SMITH, D. A., *see* BIRDSEYE **23** (1970) 198
SMITH, D. L., *see* MERRILL **21** (1970) 203
SMITH, D. P., Analysis of surface composition with low-energy backscattered ions **25** (1971) 171
SMITH, G. D. W. and J. S. ANDERSON, Field emission and field ion micros-

cope studies of the epitaxial growth of nickel on tungsten **24** (1971) 459
SMITH, JR., J. N., J. WOLLESWINKEL and J. LOS, Residence time measurements for the surface ionization of K on W: the effects of surface contaminants **22** (1970) 411
SMITH, T., Sputter cleaning and etching of crystal surfaces (Ti, W, Si) monitored by Auger spectroscopy, ellipsometry and work function change . **27** (1971) 45
SNAITH, J. C., *see* KLEMPERER **28** (1971) 209
SO, S. S., *see* VEDAM **29** (1972) 379
SOCHA, A. J., Analysis of surfaces utilizing sputter ion source instruments . **25** (1971) 147
SOCHAŃSKI, J., J. ŁAGOWSKI and A. MORAWSKI, Surface piezoresistance in germanium and silicon **25** (1971) 552
SOCHAŃSKI, J. J., *see* ŁAGOWSKI **23** (1970) 463
SOCHAŃSKI, J. S., *see* VALAHAS **26** (1971) 41
SOGOR, L. and A. G. WALTON, Mecanism of heterogeneous nucleation. I. Vapour–liquid and liquid–solid transformation of benzene catalyzed by KCl **25** (1971) 337
SOMORJAI, G. A., *see* FRENCH **22** (1970) 486
SOMORJAI, G. A., *see* FINK **29** (1972) 303
SOMORJAI, G. A., *see* LANG **30** (1972) 440
SOMORJAI, G. A., *see* LANG **30** (1972) 454
SON, U. T. and J. J. HREN, Measurements of atomic order with the field-ion microscope **23** (1970) 177
SOUTHWORTH, H. N., FIM contrast from lattice defects in ordered alloys . **23** (1970) 160
SOVEN, P., *see* KALKSTEIN. **26** (1971) 85
SPARNAAY, M. J. and J. M. MORABITO, RMS displacements on liquid and solid surfaces **21** (1970) 178
SPINK, J. A., *see* HREN **29** (1972) 331
SPROLES, JR., E. S., *see* ŁAGOWSKI **30** (1972) 653
STEFANAKOS, E. K., A. A. FADI and R. F. TINDER, Desorption of Na and K from niobium **28** (1971) 221
STEINRISSER F. and R. E. HETRICK, Wavelength dependence of the surface photovoltage cleaved CdS **28** (1971) 607
STERN, R. M., *see* SINHAROY **30** (1972) 207
STICKNEY, R. E., *see* FEHRS **21** (1970) 197
STICKNEY, R. E., *see* FEHRS **24** (1971) 409
STICKNEY, R. E., *see* DABIRI **26** (1971) 522
STICKNEY, R. E., *see* TENDULKAR **27** (1971) 516
STICKNEY, R. E., *see* BRADLEY **29** (1972) 590
STICKNEY, R. E., *see* BALOOCH **30** (1972) 483
STROZIER, JR., J. A., *see* JONA **30** (1972) 225
SUGATA, E., S. ISHII and K. MASUI, Initial growth of platinum crystals on the tungsten surface as observed by the field-ion microscope. . . . **24** (1971) 612
SUGATA, E. and S. ISHII, A method for the continuous observation of the oxygen adsorption phenomena in the field ion microscope **24** (1971) 663
SUNDARAM, V. S., *see* QUINTO **28** (1971) 504
SUSU, A. A., *see* MADIX **24** (1971) 288
SWANSON, L. W. and L. C. CROUSER, The effect of polyatomic adsorbates on the total energy distribution of field emitted electrons. **23** (1970) 1
SWINGLEY, C. S., *see* LIVINGSTON **24** (1971) 625
SZCZEPURA, A. K., *see* GASSER **28** (1971) 574

TABOR, D., J. M. WILSON and T. J. BASTOW, Surface Debye–Waller factors for Cr(100) and Mo(100) **26** (1971) 471
TAKASU, Y., *see* ONO **26** (1971) 313

TAMM, P. W. and L. D. SCHMIDT, Crystallographic anisotropies in condensation: N_2 on (110)W. **26** (1971) 286
TAN, K. P., *see* DAVIDSON **27** (1971) 297
TANDON, R. K., *see* RITCHIE **22** (1970) 199
TARDIF, A., J. M. MICHEL et J. WACH, Cinétique de décomposition de pentane sous 10^{-5}–10^{-7} Torr à la surface du tantale et des carbures Ta_2C et TaC, entre 1300 et 2300 K 26 (1971) 255
TAUB, H., Surface barrier effects in the inelastic collision model of low energy electron diffraction **30** (1972) 161
TEFFT, W. A. and K. R. ARMSTRONG, Shallow donor surface impurity levels in Si and Ge **24** (1971) 535
TENCH, A. J., Temperature effects on the hyperfine coupling of a surface centre **25** (1971) 625
TENDULKAR, D. V. and R. E. STICKNEY, Diffraction of helium atoms from a tungsten (112) crystal surface **27** (1971) 516
TERZIĆ, I. and B. PEROVIĆ, Spectral analysis of light emitted from metallic targets bombarded by high energy ions **21** (1970) 86
TERZIĆ, I. V., *see* JANEV **26** (1971) 142
TESCARI, M., *see* CLARKE **30** (1972) 553
THOMAS, R. N. and M. H. FRANCOMBE, Influence of impurities on the surface structures and fault generation in homoepitaxial Si(111) films . **25** (1971) 357
THOMAS, S. and T. W. HAAS, Auger spectroscopy study of the adsorption of Rb on Mo (110) **28** (1971) 632
THOMAS, S., *see* HAAS **28** (1971) 645
THOMPSON, N., *see* ANDERSON **26** (1971) 397
THOMPSON, N., *see* ANDERSON **28** (971) 84
TICK, P. A. and A. F. WITT, Computational approach to equilibrium relaxation in central force systems **26** (1971) 165
TINDER, R. F., *see* STEFANAKOS **28** (1971) 221
TOKUTAKA, H., *see* GALLON **21** (1970) 224
TOKUTAKA, H., M. PRUTTON, I. G. HIGGINBOTHAM and T. E. GALLON, The (100) surfaces of alkali halides II. Electron stimulated dissociation . . **21** (1970) 233
TOKUTAKA, H., *see* HIGGINBOTHAM **21** (1970) 241
TOMPKINS, H. G. and R. G. GREENLER, Experimental development of reflection–absorption spectroscopy: infrared spectrum of carbon monoxide adsorbed on copper and copper oxide **28** (1971) 194
TRILLING, L., The interaction of monatomic inert gas molecules with a continuous elastic solid **21** (1970) 337
TRILLING, L., The dependence of accommodation coefficient on surface temperature **27** (1971) 1
TRIMM, D. L., *see* PRESLAND **29** (1972) 424
TRIMM, D. L., *see* PRESLAND **29** (1972) 435
TSONG, T. T., On field ionization enhancement by field adsorption of inert gas atoms **28** (1971) 651
TSONG, T. T., On field ionization enhancement by field adsorption of inert gas atoms (E) **30** (1972) 250
TUCKER, JR., C. W. and C. B. DUKE, Determination of surface structures from low energy electron diffraction measurements **23** (1970) 411
TUCKER, JR., C. W. and C. B. DUKE, The inelastic collision model. III. Matrix inversion for isotropic scatteres **24** (1971) 31
TUCKER, JR., C. W., Hydrogen structures on metal surfaces **26** (1971) 311
TUCKER, JR., C. W. and C. B. DUKE, Surface structure determination by low-energy electron diffraction **29** (1972) 237
TYAGAI, V. A. and G. YA. KOLBASOV, The contribution of surface states to the charge transport process CdS, CdSe–electrolyte interface . . . **28** (1971) 423

USAMI, S., *see* HOPKINS **23** (1970) 423
UZAN, R,, *see* VU THIEN BINH **25** (1719) 348

VALAHAS, T. M., J. S. SOCHAŃSKI and H. C. GATOS, Electrical characteristics of gallium arsenide "real" surfaces. **26** (1971) 41
VAN DEN BRINK, M., *see* VAN OIRSCHOT **29** (1972) 189
VAN DER AVOIRD, A., *see* FASSAERT **29** (1972) 501
VAN DONGEN, R. H., J. H. KASPERSMA and J. H. DE BOER, Physical adsorption at high relative pressures **28** (1971) 237
VAN DONGEN, R. H., Localized physical adsorption on ionic solids . . . **30** (1972) 232
VAN EEKELEN, H. A. M., The behaviour of the field-ion microscope: a gas dynamical calculation **21** (1970) 21
VAN HOVE, E., *see* DEMESSEMAEKERS. **21** (1970) 189
VAN HOVE, H. J., Slow field induced relaxation on pure and Li-doped ZnO. **22** (1970) 76
VAN OIRSCHOT, TH. G. J. and W. H. M. SACHTLER, Photoelectric emission from vapour quenched and annealed sodium films **27** (1971) 611
VAN OIRSCHOT, TH. G. J., M. VAN DEN BRINK and W. M. H. SACHTLER, Photoelectric emission and phase transitions of evaporated metastable sodium, potassium and sodium–potassium alloy films **29** (1972) 189
VAPAILLE, A., *see* CASTAGNÉ **28** (1971) 157
VEDAM, K. and S. S. So, Charaterization of real surfaces by ellipsometry . **29** (1972) 379
VELCHEV, N., *see* KASSABOV **21** (1970) 366
VENNIK, J., *see* FIERMANS **24** (1971) 541
VERBEEK, H., *see* FASSAERT **29** (1972) 501
VERHAEGHE, M. F., *see* CROCE **22** (1970) 173
VERMAAK, J. S., *see* WASSERMAN **22** (1970) 164
VINCENT, L., *see* EHRHARDT **26** (1971) 490
VON HELLERMANN, M., *see* BAUER **30** (1972) 701
VOOK, R. W., S. OUYANG and M. A. OTOONI, X-ray measurement of the (111) surface relaxation in gold **29** (1972) 277
VOORHOEVE, R. J. H., Simplifications and complications of heterogeneous nucleation theory **28** (1971) 145
VU THIEN BINH, A. PIQUET, H. ROUX, R. UZAN et M. DRECHSLER, Evolutions morphologiques des pointes métalliques par traitement thermique (vérification de la théory de Nichols et Mullins) **25** (1971) 348

WABER, J. T., *see* RAO **28** (1971) 299
WACH, J., *see* TARDIF **26** (1971) 255
WACHTLER, W. M. H., *see* BOUWMAN **26** (1971) 364
WALTON, A. G., *see* SOGOR **25** (1971) 337
WARD, W. and J. M. PHILLIPS, Calculated lamellar binding. I. Van Der Waals bonding in talc and pyrophyllite **25** (1971) 379
WASSERMAN, H. J. and J. S. VERMAAK, On the determination of a lattice contraction in very small silver particles **22** (1970) 164
WASSERMANN, E. F. and H. P. JABLONSKI, Epitaxial growth of iron on (100)- and (111)-gold substrates **22** (1970) 69
WASSERMANN, E. F. and K. A. POLACEK, Low temperature epitaxy of Au on ZnO **28** (1971) 77
WASSMUTH, H.-W., *see* MAZUMDAR **30** (1972) 617
WATTS, C. M. K., Interpretation of LEED experiments at very low energies **23** (1970) 453
WATTS, G. D., *see* HOPKINS **28** (1971) 581
WEBB, M. B., *see* LAGALLY **25** (1971) 444
WEDLER, G., C. WÖLFING und P. WISSMANN, Die photoelektrischen Eigenschaften aufgedampfter Nickelfilme; Einfluss von Schichtdicke

und Temperung **24** (1971) 302
WEDLER, G. und P. WISSMANN, Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen **26** (1971) 389
WEDLER, G. und F. J. BRÖCKER, Die Adsorptionswärme des Wasserstoffs an Nickelfilmen bei 77 °K und ihr Bezug zu anderen Adsorptionseffekten **26** (1971) 454
WEI, P. S. P., Electron impact study of insulator surfaces: LiF and NaF . **24** (1971) 219
WEI, P. S. P. and A. W. SMITH, Energy dependence of plasmon excitations in silicon by back-scattered low energy electrons **27** (1971) 675
WEINBERG, W. H., *see* LAMBERT **27** (1971) 653
WEINBERG, W. H., R. M. LAMBERT, C. M. COMRIE and J. W. LINNETT, Oxygen chemisorption on platinum. II. Model calculation **30** (1972) 299
WELLS, M. G., *see* KING **29** (1972) 454
WENDT, H. R., *see* JONA **24** (1971) 343
WEVER, H., *see* ADAM **21** (1970) 307
WHEATLEY, G. H., *see* E. G. MCRAE **29** (1972) 342
WHEATLEY, G. H., *see* BALL **30** (1972) 69
WILLIAMS, C. B., *see* HOPKINS **25** (1971) 633
WILLIAMS, D. P. and R. P. H. GASSER, Low energy electron desorption of mixed adsorbates **25** (1971) 265
WILHELM, F., *see* KUISL **22** (1970) 253
WILLIS, A., *see* LEVINE **29** (1972) 144
WILMER, P. C., *see* HOPKINS **25** (1971) 633
WILSCH, H., *see* HOINKES **30** (1972) 363
WILSON, A. D., *see* ATKINS **22** (1970) 433
WILSON, J. M. and T. J. BASTOW, Surface thermal expansion for Cr (100) and Mo (100) single crystals **26** (1971) 461
WILSON, J. M., *see* TABOR **26** (1971) 471
WILSON, R. G., Surface ionization hysteresis phenomena **25** (1971) 385
WINTERS, H. F. and D. E. HORNE, The chemisorption of nitrogen at activated sites on a polycrystalline tungsten surface. **24** (1971) 587
WISSMANN, P., *see* WEDLER **24** (1971) 302
WISSMANN, P., *see* WEDLER **26** (1971) 389
WITT, A. F., *see* TICK **26** (1971) 165
WÖLFING, C., *see* WEDLER **24** (1971) 302
WOLFRAM, T., R. E. DE WAMES, W. F. HALL and P. W. PALMBERG, Surface magnetization near the critical temperature and the temperature dependence of magnetic-electron scattering from NiO **28** (1971) 45
WOLLESWINKEL, J., *see* SMITH **22** (1970) 411
WONG, C., *see* JONA **30** (1972) 225
WONG, G. I., *see* MURR **26** (1971) 184
WONG, G. I., *see* MURR **27** (1971) 383
WOOD, J. C., *see* SEYMOUR **27** (1971) 605
WOOD, P. R., *see* HECKINGBOTTOM . . . . . **23** (1970)437
WOODRUFF, D. P., *see* HOLLAND **25** (1971) 576
WOODRUFF, T. O., *see* GERSBACHER, JR. **28** (1971) 489
WURZBACHER, G. and P. GEBHARDT, Interaction of physisorbed oxygen with thin superconducting tin films **21** (1970) 324
WYNBLATT, P. and N. A. GJOSTEIN, A calculation of migration energies and binding energies for tungsten adatoms on tungsten surfaces . . **22** (1970) 125

YAMASHINA, T., *see* ONO **26** (1971) 313
YANG, J. J., *see* YANG **27** (1971) 349
YANG, T. T. and J. J. YANG, Theoretical investigation of thermionic and

photoelectric emission from semiconductors in the region of Schottky deviation **27** (1971) 349
YATES, JR., J. T. and T. E. MADEY, The adsorption of methane by tungsten (100) **28** (1971) 437
YATES, JR., J. T. and D. A. KING, Chemisorption of carbon monoxide on tungsten: correlation of reflection–absorption infrared spectra with CO binding state population **30** (1972) 601
YNDURAIN, F. and M. ELICES, Surface states calculation for the (100), (110) and (111) faces of Si **29** (1972) 540
YONEHARA, K. and L. D. SCHMIDT, A LEED study of structures produced by H_2 on (100) W **25** (1971) 238

ZANAZZI, E., *see* ROVIDA. **30** (1972) 707
ZEHNER, D. M. and H. E. FARNSWORTH, LEED structures due to interaction of CO and O_2 with (0001) and (10$\bar{1}$0) Re and 20 °C to 920 °C . **30** (1972) 335
ZEI, M. -S., *see* BLOCK **27** (1971) 419
ZIMMER, R. S. and W. D. ROBERTSON, A carbon structure on the Re (0001) surface **29** (1972) 230
ZINETS, O. S., *see* DOBROVOL'SKII **22** (1970) 137
ZITTER, R. N., Raman detection of tellurium layers on surfaces of CdTe . **28** (1971) 325

SUBJECT INDEX

Acetone

J. L. Illinger and D. Rivin, Desorption of organic adsorbates from carbon II. Determining kinetic parameters non-isothermally **21** (1970) 169

Accommodation coefficient

L. Trilling, The interaction of monatomic inert gas molecules with a continuous elastic solid **21** (1970) 337

L. Trilling, The dependence of accommodation coefficient on surface temperature **27** (1971) 1

Adsorption

H. A. M. van Eekelen, The behaviour of the field-ion microscope: a gas dynamical calculation **21** (1970) 21

G. Ertl und J. Küppers, Monte-Carlo-Behandlung geordneter Adsorptionsphasen **21** (1970) 61

P. Le Goff et R. Ducros, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. I. Exposé du modèle **21** (1970) 136

J. L. Illinger and D. Rivin, Desorption of organic adsorbates from carbon. II. Determining kinetic parameters non-isothermally . . . **21** (1970) 169

D. W. Bassett, Field ion microscope studies of iridium adatom clusters on (110) tungsten surfaces **21** (1970) 181

D. L. Fehrs, T. J. Lee, B. J. Hopkins and R. E. Stickney, Comments on "An electron diffraction study of cesium adsorption on tungsten" . **21** (1970) 197

T. E. Gallon, I. G. Higginbotham, M. Prutton and H. Tokutaka, The (100) surfaces of alkali halides. I. The air and vacuum cleaved surfaces **21** (1970) 224

H. Tokutaka, M. Prutton, I. G. Higginbotham and T. E. Gallon, The (100) surfaces of alkali halides. II. Electron stimulated dissociation **21** (1970) 233

I. G. Higginbotham, T. E. Gallon, M. Prutton and H. Tokutaka, The (100) surfaces of alkali halides. III. Electron stimulated desorption and overall discussion **21** (1970) 241

J. P. Goad, H. E. Bishop and J. C. Rivière, Electron-beam assisted adsorption on the Si (111) surface. **21** (1970) 253

G. Wurzbacher and P. Gebhardt, Interaction of physisorbed oxygen with thin superconducting tin films **21** (1970) 324

J. M. Chen and C. A. Papageorgopoulos, LEED study of Na on W (112). **21** (1970) 377

K. D. Rendulic, A comparison between FIM and LEED studies of surface reconstruction **21** (1970) 401

S. R. Rao, Thermodynamic analysis of ethyl xanthate adsorbed at galena surface **21** (1970) 413

A. G. Fedorus and A. G. Naumovets, Cesium on tungsten (001) face;

structure and work function **21** (1970) 426
R. G. Musket, Auger electron spectroscopy study of electron-impact desorption **21** (1970) 440
B. Boddenberg, R. Haul und G. Oppermann, Adsorptionskinetische und NMR Spinecho-Untersuchungen zur Selbstdiffusion adsorbierter Moleküle **22** (1970) 29
B. Boddenberg, Modell für die Oberflächendiffusion im Bereich der Mono- und Mehrschichtadsorption **22** (1970) 39
D. L. Adams, L. H. Germer and J. W. May, The adsorption of hydrogen on tungsten (112); co-adsorption of hydrogen with oxygen . . . **22** (1970) 45
H. Knözinger und H. Jeziorowski, Das Adsorptionsverhalten von Thoriumoxid. I. Kinetik der Adsorption von Äthanol, Äthyläther und Wasser **22** (1970) 111
C. Lamy et P. Malaterre, Caractérisation des sites réactionnels d'une électrode en functionnement par résonance paramagnétique électronique: application à des électrodes de charbons platinés **22** (1970 325
A. J. Sargood, C. W. Jowett and B. J. Hopkins, A relationship between surface potential and electronegativity for adsorption on tungsten single crystals **22** (1970) 343
L. R. Clavenna and L. D. Schmidt, Interaction of N_2 with (100) W . . **22** (1970) 365
C. W. Jowett and B. J. Hopkins, Work function changes due to the adsorption of chorine, bromine and iodine on tungsten single crystal surfaces **22** (1970) 392
J. N. Smith, Jr., J. Wolleswinkel and J. Los, Residence time measurements for the surface ionization of K on W: the effects of surface contaminants. **22** (1970) 411
Z. Bastl, On the demetallization effect of chemisorption **22** (1970) 439
W. M. H. Sachtler, Comments on: "On the demetallization effect of chemisorption" by Z. Bastl **22** (1970) 442
T. M. French, A. E. Morgan and G. A. Somorjai, On the need for higher gas pressures to obtain surface structures in low energy electron diffraction studies **22** (1970) 460
L. W. Swanson and L. C. Crouser, The effect of polyatomic adsorbates on the total energy distribution of field emitted electrons **23** (1970) 1
F. W. Röllgen and H. D. Beckey, Surface reactions induced by field ionization of organic molecules **23** (1970) 69
E. W. Müller, S. V. Krishnaswamy and S. B. McLane, Atom-probe FIM analysis of the interaction of the imaging gas with the surface . . **23** (1970) 112
A. M. Horgan and D. A. King, Oxygen adsorption, reconstruction, and thin oxide film formation on clean metal surfaces: Ni, Fe, W and Mo . **23** (1970) 259
C. C. Chang, Contamination on chemically etched silicon surfaces: LEED-Auger method **23** (1970) 283
B. Kindl, E. Negri and G. F. Cerofolini, Adsorption isotherms of noble gases on glasses **23** (1970) 299
M. Green, M. J. Lee and P. R. Simmons, The adsorption of oxygen on clean chalcogenide glass surfaces **23** (1970) 409
C. W. Tucker, Jr. and C. B. Duke, Determination of surface structures from low energy electron diffraction measurements **23** (1970) 411
D. L. Adams and L. H. Germer, Adsorption of hydrogen on W(100) . . **23** (1970) 419
B. J. Hopkins and S. Usami, The surface potential of hydrogen on tungsten (100), (110) and (112) single crystal surfaces **23** (1970) 423
R. Heckingbottom and P. R. Wood, LEED evidence for carbon contamination of the Si(311) surface **23** (1970) 437
E. Guesne, C. Sébenne and M. Balkanski, Electronic surface properties of CdSe single crystals under vacuum or oxygen **24** (1971) 18

C. KOHRT and R. GOMER, The adsorption of CO on the (110) plane of tungsten **24** (1971) 77
G. ERTL und J. KÜPPERS, Adsorption an Einkristall-Oberflächen von Cu/Ni-Legierungen. I **24** (1971) 104
H. POPPA and A. G. ELLIOT, The surface composition of mica substrates . **24** (1971) 149
A. V. ROCHLENKO and W. A. LAWRENKO, Über den Zusammenhang zwischen Energieadsorption und Rekombinationskoeffizient von Gasatomen auf der Oberfläche von Festkörpern **24** (1971) 164
J. V. FLORIO and W. D. ROBERTSON, Structure and transformation characteristics of impurity stabilized phases on the Si (111) surface . . **24** (1971) 173
A. J. BENNETT, B. MCCARROLL and R. P. MESSMER, A molecular orbital approach to chemisorption. I. Atomic hydrogen on graphite . . . **24** (1971) 191
M. PERDEREAU, Emploi quantitatif de la spectroscopie Auger; étalonnage de la méthode **24** (1971) 239
L. D. MATTHEWS, Radiotracer and photoemission studies of CO chemisorbed on Mo (100). **24** (1971) 248
R. J. MADIX and J. A. SCHWARZ, Chemical relaxation molecular beam studies of reactive gas–solid scattering. I. Reaction of silicon and germanium with molecular chlorine **24** (1971) 264
R. J. MADIX, R. PARKS, A. A. SUSU and J. A. SCHWARZ, Chemical relaxation molecular beam studies of reactive gas–solid scattering. II. Reaction of ozone with heated germanium surfaces **24** (1971) 288
D. L. FEHRS and R. E. STICKNEY, Contact potential measurements of the adsorption of alkali metals on Ta(110) and W(100) crystals **24** (1971) 309
F. JONA and H. R. WENDT, Radioactive method for the determination of sticking coefficients: Ge on Ge{111} **24** (1971) 343
G. F. CEROFOLINI, Adsorption and surface heterogeneity **24** (1971) 391
M. R. LEGGETT and R. A. ARMSTRONG, A study of hydrogen adsorption on a (100) tungsten surface using a simple HEED system **24** (1971) 404
G. HEINICKE und H. HOFFMANN, Zur Wechselwirkung von Gasen an tribomechanisch bearbeiteten Nickeloberflächen. **24** (1971) 484
J. PERDEREAU and G. E. RHEAD, LEED studies of adsorption on vicinal copper surfaces **24** (1971) 555
H. F. WINTERS and D. E. HORNE, The chemisorption of nitrogen at activated sites on a polycrystalline tungsten surface. **24** (1971) 587
M. F. CHUNG and H. E. FARNSWORTH, Enhanced oxygen chemisorption on CdSe (0001) by a hot filament **24** (1971) 635
A. D. CROWELL, Van der Waals potential for nitrogen interacting with graphite **24** (1971) 651
K. YONEHARA and L. D. SCHMIDT, A LEED study of structures produced by H_2 on (100) W **25** (1971) 238
D. P. WILLIAMS and R. P. H. GASSER, Low energy electron desorption of mixed adsorbates **25** (1971) 265
J. R. SCHRIEFFER and R. GOMER, Induced covalent bond mechanism of chemisorption **25** (1971) 315
M. F. CHUNG and H. E. FARNSWORTH, Effect of bulk resistivity, annealing temperature and illumination on oxygen sorption on CdSe surfaces . **25** (1971) 321
CH. KLEINT, Surface diffusion model of adsorption–induced field emission flicker noise. II. Experiments **25** (1971) 411
W. P. PALMBERG,Physical adsorption of xenon on Pd (100) **25** (1971) 598
B. J. HOPKINS, C. B. WILLIAMS and P. C. WILMER, Chemical and physical adsorption of oxygen on the (110) plane of tungsten **25** (1971) 633
P. GENEQUAND, Photodesorption **25** (1971) 643
F. W. RÖLLGEN and H. D. BECKEY, Field induced chemisorption and promoted field ionization **26** (1971) 100

D. L. Adams and L. H. Germer, The adsorption of nitrogen on W(100) . 26 (1971) 109
R. L. Lewis and R. Gomer, Adsorption studies in the field ion microscope with argon imaging 26 (1971) 197
P. W. Tamm and L. D. Schmidt, Crystallographic anisotropies in condensation: N_2 on (110) W 26 (1971) 286
R. W. Joyner, C. S. McKee and M. W. Roberts, The adsorption of carbon monoxide on Cu (001); LEED and Auger emission studies . . 26 (1971) 303
R. R. Ford and D. Lichtman, Ion desorption characteristics induced by electron interaction with carbon monoxide adsorbed on rhenium . . 26 (1971) 365
G. Wedler und P. Wissman, Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen 26 (1971) 389
G. Wedler und F. J. Bröcker, Die Adsorptionswärme des Wasserstoffs an Nickelfilmen bei 77°K und 273°K und ihr Bezug zu anderen Adsorptionseffekten. 26 (1971) 454
J. J. Ehrhardt, L. Vincent, A. Cassuto et J. P. Malenge, Détermination de la distribution d'énergie de liaison de gaz adsorbés sur des films métalliques; application au système Pt–O_2 . . . . . 26 (1971) 490
J. M. Chen and C. A. Papageorgopoulos, Work function and LEED study of Na and O_2 covered surfaces of W (112) 26 (1971) 499
A. E. Dabiri, T. J. Lee and R. E. Stickney, Spatial and speed distributions of H_2 and D_2 desorbed from a polycrystalline nickel surface . . . 26 (1971) 522
R. M. Lambert, J. E. Linnett and J. A. Schwarz, Adsorption of oxygen on molybdenum (111): effect of trace impurities 26 (1971) 572
M. F. Chung and L. H. Jenkins, Characteristic energies in secondary electron spectra from Si(111) surfaces 26 (1971) 649
L. B. Harris, Reply to "Isosteric heat of adsorption on homogeneous and patchwise heterogeneous surfaces" 26 (1971) 667
T. A. Delchar, Oxygen chemisorption on copper single crystals . . . 27 (1971) 11
D. L. Adams and L. H. Germer, Adsorption on single-crystal planes of tungsten. I. Nitrogen 27 (1971) 21
P. R. Anderson, A model for localized physical adsorption on ionic solids . 27 (1971) 60
A. Netten and A. H. Boonstra, Three-step adsorption of hydrogen sulphide at about − 120°C on vapour-deposited lead monoxide layers 27 (1971) 77
F. Meyer, E. E. de Kluizenaar and G. A. Bootsma, Ellipsometry and the clean surfaces of silicon and germanium 27 (1971) 88
F. Meyer, Ellipsometric study of adsorption complexes on silicon . . . 27 (1971) 107
R. F. Egerton and A. J. Crocker, The electrical effect of atomic hydrogen on lead telluride 27 (1971) 117
F. O. Goodman, Exponential and inverse-square attractive potentials in gas–surface interaction theory 27 (1971) 157
M. Kostelitz et J. Oudar, Étude thermodynamique et structurale de l'adsorption dans le système or–soufre 27 (1971) 176
R. Riwan, La diffusion du soufre vers la face (110) du nickel 27 (1971) 267
R. W. Joyner, C. S. McKee and M. W. Roberts, The interaction of hydrogen sulphide with Cu(001) 27 (1971) 279
G. Dorey, Monolayer adsorption of oxygen on alumunium 27 (1971) 311
G. J. Russell and D. Haneman, Oxygen adsorption on vacuum cleaved GaAs at liquid nitrogen temperatures by LEED 27 (1971) 362
B. McCarroll and R. P. Messmer, A molecular orbital approach to chemisorption. III. Atomic H and O on graphitic BN 27 (1971) 451
B. A. Joyce and J. H. Neave, An investigation of silicon–oxygen interactions using Auger electron spectroscopy 27 (1971) 499
R. C. Seymour and J. C. Wood, Paramagnetic gas adsorption 27 (1971) 605
J. Peavey and D. Lichtman, Photon induced desorption using synchroton

radiation **27** (1971) 649
R. G. Forbes, Field-ion imaging theory: on the visibility of adsorbates . . **27** (1971) 659
J. R. Anderson and N. Thompson, Adsorption of Cl_2 on titanium studied by field emission microscopy **28** (1971) 84
H. G. Tompkins and R. G. Greenler, Experimental development of reflection–absorption spectroscopy: infrared spectrum of carbon monoxide absorbed on copper and copper oxide **28** (1981) 194
D. F. Klemperer and J. C. Snaith, Roughness and surface potential in physisorption **28** (1971) 209
E. K. Stefanakos, A. A. Fadl and R. F. Tinder, Desorption of Na and K from niobium **28** (1971) 221
R. H. van Dongen, J. H. Kaspersma and J. H. de Boer, Physical adsorption at high relative pressures **28** (1971) 237
F. Delamare and G. E. Rhead, Increase in the surface self-diffusion of copper due to the chemisorption of halogens **28** (1971) 267
K. D. Rendulic, Measurements on field adsorption of neon and helium and the field ionization of a helium–neon mixture **28** (1971) 285
S. N. Kozlov, V. F. Kiselev and Yu. F. Novototskil-Vlasov, Investigation of long-term processes on a real germanium surface **28** (1971) 395
J. T. Yates, Jr. and T. E. Madey, The adsorption of methane by tungsten (100) **28** (1971) 437
M. A. Chesters and J. Pritchard, LEED and surface potential study of carbon monoxide and xenon adsorbed on Cu (100). **28** (1971) 460
S. Baidyaroy, W. R. Bottoms and P. Mark, Photodesorption from CdS . **28** (1971) 517
R. P. H. Gasser, T. N. Morton, J. M. Overton and A. K. Szczepura, Kinetic isotope effect in hydrogen adsorption on tungsten. . . . **28** (1971) 574
B. J. Hopkins, M. Leggett and G. D. Watts, A RHEED study of the adsorption of oxygen, hydrogen, nitrogen and water vapour on the (100) face of tantalum **28** (1971) 581
G. K. Hall and C. H. B. Mee, The surface potential of oxygen on iron, cobalt and manganese **28** (1971) 598
M. J. Katz, D. C. Fox and K. J. Haas, The effect of adsorbed water on the surface photovoltage of GaAs **28** (1971) 627
I. Giaever, A simple model of electron emission through adsorbed molecules **29** (1972) 1
C. E. Carroll and J. W. May, Ionic monolayers on metals. I. Layers of like ions **29** (1972) 60
J. W. May and C. E. Carroll, Ionic monolayers on metals. II. Neutral mixed layers and surface reconstruction **29** (1972) 85
S. Baidyaroy, W. R. Bottoms and P. Mark, The influence of surface structure on the chemisorption of oxygen by CdS single crystals . . **29** (1972) 165
R. S. Zimmer and W. D. Robertson, A carbon structure on the Re(0001) surface **29** (1972) 230
C. W. Tucker, Jr. and C. B. Duke, Surface structure determination by low-energy electron diffraction **29** (1972) 237
Y. de Ribaupierre et J.-P. Borel, Etats d'adsorption à faible densité du potassium sur le cuivre **29** (1972) 265
H. H. Glascock, Jr., Thermionic emission from CaO in Ba vapor . . . **29** (1972) 291
G. A. Bootsma and H. J. Gassen, Room temperature gas adsorption on silicon carbide **29** (1972) 297
R. Klein, Preparation of contiguous chemisorbed adlayers by sequential deposition and surface migration **29** (1972) 309
R. L. Gerlach and A. R. Ducharme, Inner shell ionization of surface atoms by electron impact **29** (1972) 317
K. J. Matysik, A hydrogen superstructure on W(110) **29** (1972) 324
E. G. McRae and G. H. Wheatley, Observations of electron reflection at

tungsten (001) surface in the energy range 1–10 eV **29** (1972) 342
Y. Margoninski, The influence of inelastic electron processes on LEED beam intensities during adsorption studies. **29** (1972) 355
D. A. King and M. G. Wells, Molecular beam investigation of adsorption kinetics on bulk metal targets: nitrogen on tungsten **29** (1972) 454
D. J. M. Fassaert, H. Verbeek and A. van der Avoird, Molecular orbital models for hydrogen adsorption on different sites of a nickel crystal . **29** (1972) 501
S. Hellwig und J. H. Block, Die Feldemission des Wolframs nach der Adsorption von Kohlenwasserstoffen **29** (1972) 523
T. E. Madey, Adsorption and displacement processes on W(111) involving CH_4, H_2, and O_2 . . . . . **29** (1972) 571
T. L. Bradley, A. E. Dabiri and R. E. Stickney, Measurements of the spatial distribution of H_2 desorbed from Ni surfaces: effects of surface composition and crystal orientation **29** (1972) 590
N. V. Mileshkina and R. Z. Bakhtizin, Oxygen adsorption on the atomically clean surface of germanium field emitter. **29** (1972) 644
M. Sato, Saturated state of hydrogen on tungsten at room temperature . **29** (1972) 667
S. Baidyaroy and P. Mark, Analytical and experimental investigation of the effects of oxygen chemisorption on the electrical conductivity of CdS **30** (1972) 53
R. H. van Dongen, Localized physical adsorption on ionic solids . . . **30** (1972) 232
Z. Bastl, Comments on: "Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen" by G. Wedler and P. Wissmann **30** (1972) 245
M. D. Scheer, R. Klein and J. D. McKinley, Halogens adsorbed on molybdenum: their surface lifetimes and desorption kinetics **30** (1972) 251
Wm. H. Krueger and S. R. Pollack, Room temperature adsorption of water by aluminum thin films **30** (1972) 280
W. H. Weinberg, R. M. Lambert, C. M. Comrie and J. W. Linnett, Oxygen chemisorption in platinum. II. Model calculations **30** (1972) 299
D. M. Zehner and H. E. Farnsworth, LEED structures due to interaction of CO and O_2 with (0001) and (10$\bar{1}$0) Re at 20 °C to 920 °C **30** (1972) 335
H. Hoinkes, H. Nahr and H. Wilsch, Reflection, diffraction and selective adsorption of atomic hydrogen on the (001) surface of LiF **30** (1972) 363
C. E. Brown and P. G. Hall, Reaction of nitric oxide with a graphite surface, and the adsorptive properties of the resultant surface **30** (1972) 379
F. Grønlund and P. E. Højlund Nielsen, Surface structures formed upon oxidation of the (111), (100), and (110) faces of copper **30** (1972) 388
J. M. López-Sancho and J. L. de Segovia, Adsorption kinetics and electron desorption of O_2 on polycrystalline tungsten **30** (1972) 419
B. Lang, R. W. Joyner and G. A. Somorjai, Low energy electron diffraction studies of chemisorbed gases on stepped surfaces of platinum . . **30** (1972) 454
G. E. Becker and H. D. Hagstrum, Orbital energy spectra of electrons in chemisorption bonds: O, S, Se on Ni(110) and Ni(111) **30** (1972) 505
F. O. Goodman, Simple model for the velocity distribution of molecules desorbed from surfaces following recombination of atoms **30** (1972) 525
J. T. Yates, Jr. and D. A. King, Chemisorption of carbon monoxide on tungsten: correlation of reflection–absorption infrared spectra with CO binding state population **30** (1972) 601
A. K. Mazumdar and H.-W. Wassmuth, Mass-spectrometric study of the chemisorption of oxygen on tungsten under transient and steady-state desorption conditions **30** (1972) 617
C. B. Duke and G. E. Laramore, Determination of the structure of adsorbed monolayers by the energy-averaging method: Al(100) **30** (1972) 659
H. J. Bauer, D. Blechschmidt and M. von Hellermann, On hte influence of gaseous hydrogen on the saturation magnetization of thin evaporat-

ed nickel films **30** (1972) 701
G. Rovida, E. Zanazzi and E. Ferroni, On the interaction of oxygen with Si(111) surfaces **30** (1972) 707
B. A. Joyce and J. H. Neave, Reply to Comments on the interaction of oxygen with Si(111) surfaces **30** (1972) 710

Alkali halides

T. E. Gallon, I. G. Higginbotham, M. Prutton and H. Tokutaka, The (100) surfaces of alkali halides. I. The air and vacuum cleaved surfaces . **21** (1970) 224
H. Tokutaka, M. Prutton, I. G. Higginbotham and T. E. Gallon, The (100) surfaces of alkali halides. II. Electron stimulated dissociation. . **21** (1970) 233
I. G. Higginbotham, T. E. Gallon, M. Prutton and H. Tokutaka, The (100) surfaces of alkali halides. III. Electron stimulated desorption and overall discussion **21** (1970) 241
B. Lewis, Migration and capture processes on heterogeneous nucleation and growth. II. Comparison with experiment **21** (1970) 289
P. S. P. Wei, Electron impact study of insulator surfaces: LiF and NaF . . **24** (1971) 219
L. Sogor and A. G. Walton, Mechanism of heterogeneous nucleation. I. Vapor–liquid and liquid–solid transformation of benzene catalyzed by KCl **25** (1971) 337
B. W. Holland, R. W. Hannum and A. M. Gibbons, Calculations based on the inelastic collision model for LEED. I. LiF(001) **25** (1971) 561
M. Green, The surface structure of KCl and PbTe films grown on mica . . **26** (1971) 549
P. R. Anderson, A model for localized physical adsorption on ionic solids . **27** (1971) 60
A. Masson, J. J. Métois et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. I. Partie expérimentale . . **27** (1971) 463
R. Kern, A. Masson et J. J. Métois, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. II. Partie théorique . . . **27** (1971) 483
F. Okuyama, Preliminary study of KCl by field-emission microscopy . . **27** (1971) 635
J. J. Métois, M. Gauch, A. Masson et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. III. Cas de l'aluminium sur KCl; précisions sur le mécanisme de glissement **30** (1972) 43
H. Hoinkes, H. Nahr and H. Wilsch, Reflection, diffraction and selective adsorption of atomic hydrogen on the (001) surface of LiF **30** (1972) 363

Alkali metals

D. L. Fehrs and R. E. Stickney, Contact potential measurements of the adsorption of alkali metals on Ta(110) and W(100) crystals **24** (1971) 309
R. G. Wilson, Surface ionization hysteresis phenomena **25** (1971) 385
Th. G. J. van Oirschot and W. M. H. Sachtler, Photoelectric emission from vapour quenched and annealed sodium films **27** (1971) 611
E. K. Stefanakos, A. A. Fadl and R. F. Tinder, Desorption of Na and K from niobium **28** (1971) 221
S. Thomas and T. W. Haas, Auger spectroscopy study of the adsorption of Rb on Mo(110) **28** (1971) 632
C. E. Carroll and J. W. May, Ionic monolayers on metals. I. Layers of like ions **29** (1972) 60
Th. G. J. van Oirschot, M. van den Brink and W. M. H. Sachtler, Photoelectric emission and phase transitions of evaporated metastable sodium, potassium and sodium–potassium alloy films **29** (1972) 189
Y. de Ribaupierre et J.-P. Borel, Etats d'adsorption à faible densité du potassium sur le cuivre **29** (1972) 265

Alloys

S. S. Brenner and J. T. McKinney, Construction and performance of an FIM-atom probe **23** (1970) 88
B. Ralph, The metallurgical applications of the field-ion microscope . . **23** (1970) 130
B. G. LeFevre, Field-ion studies of microstructures and transformations in long-range-ordered alloys **23** (1970) 144
H. N Southworth, FIM contrast from lattice defects in ordered alloys . **23** (1970) 160
U. T. Son and J. J. Hren, Measurements of atomic order with the field-ion microscope **23** (1970) 177
G. Ertl und J. Küppers, Adsorption an Einkristall-Oberflächen von Cu/Ni-Legierungen. I. **24** (1971) 104
T. Edmonds and J. J. McCarroll, Comments on "Determination of nickel–molybdenum surface alloy structures using LEED" by L. G. Feinstein and E. Blanc **24** (1971) 353
L. E. Murr, R. J. Horylev and G. I. Wong, Measurement of absolute interfacial free energies in a NiCr alloy. **26** (1971) 184
W. Schmidt, Th. Reisner and E. Krautz, Field ion microscopic observation of interaction phenomena of neon atoms with platinum and platinum–gold alloy surfaces. **26** (1971) 297
M. Ono, Y. Takasu, K. Nakayama and T. Yamashina, Auger spectroscopy study on copper–nickel alloy surfaces related to the catalysis . . **26** (1971) 313
D. T. Quinto, V. S. Sundaram and W. D. Robertson, Auger spectra of copper–nickel alloys. **28** (1971) 504

Alumina

P. Roy and D. W. Fuerstenau, The effect of doping on the point of zero of charge of alumina **30** (1972) 487

Aluminum

R. B. Elliott and F. R. O'Neill, Photo-electron emission from abraded aluminium **21** (1970) 203
K. H. Gundlach and J. Hölzl. Logarithmic conductivity of Al–Al_2O_3–Al tunneling junctions produced by plasma- and by thermal oxidation. . **27** (1971) 125
G. Dorey, Monolayer adsorption of oxygen on aluminium **27** (1971) 311
L. de Bersuder, V. Hoffstein and J. Lauzier, LEED rotation diagrams for Al **27** (1971) 338
C. B. Duke, G. E. Laramore, B. W. Holland and A. M. Gibbons, Isotropic-scatterer inelastic-collision-model analysis of low-energy electron diffraction from Al(100) and Al(110). **27** (1971) 525
D. T. Quinto and W. D. Robertson, Identification of Auger spectra from aluminum. **27** (1971) 645
D. R. Arnott and J. A. Ramsey, Electron emission from anodically oxidised aluminium due to tensile deformation **28** (1971) 1
D. S. Boudreaux, Surface states on simple metals: aluminum **28** (1971) 344
A. G. Jackson and M. P. Hooker, Auger/LEED investigation of the deposition of Al onto the Mo(110) surface **28** (1971) 373
L. H. Jenkins and M. F. Chung, Auger and other characteristic energies in secondary electron spectra from Al surfaces **28** (1971) 409
K. Hirabayashi, Intensity analysis of low-energy electron diffraction from Al(100) by simplified s-wave approximation **28** (1971) 621
J. J. Métois, M. Gauch, A. Masson et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. III. Cas de l'alumi-

nium sur KCl; précisions sur le mécanisme de glissement **30** (1972) 43
H. Taub, Surface barrier effects in the inelastic collision model of low energy electron diffraction **30** (1972) 161
J. M. Elson and R. H. Ritchie, The damping rate of plasma waves in condensed matter **30** (1972) 178
F. Jona, J. A. Strozier, Jr. and C. Wong, Re-examination of Al(110) with low-energy electron diffraction and Auger spectroscopy . . . **30** (1972) 225
Wm. H. Krueger and S. R. Pollack, The initial oxidation of aluminum thin films at room temperature **30** (1972) 263
Wm. H. Krueger and S. R. Pollack, Room temperature adsorption of water by aluminum thin films **30** (1972) 280
G. L. Hunt and I. M. Ritchie, The effect of traces of iodine on the oxidation rate of aluminium **30** (1972) 475
C. B. Duke and G. E. Laramore, Determination of the structure of adsorbed monolayers by the energy-averaging method: Al(100) **30** (1972) 659

Aluminum oxide

T. M. French, A. E. Morgan and G. A. Somorjai, On the need for higher gas pressures to obtain surface structures in low electron diffraction studies **22** (1970) 460
R. R. Slater, Surface Madelung potentials in electron spectroscopy . . **23** (1970) 403
K. H. Gundlach and J. Hölzl, Logarithmic conductivity of Al–Al_2O_3–Al tunneling junctions produced by plasma- and by thermal oxidation . **27** (1971) 125

Arsenic

S. B. Brumbach and G. M. Rosenblatt, Factors determining residence lifetimes of As_4 molecules on an arsenic (111) surface **29** (1972) 555
M. Balooch, A. E. Dabiri and R. E. Stickney, Measurements of the speed and spatial distributions of arsenic molecules evaporated from an As(111) crystal **30** (1972) 483

Atom (ion) sazttering

R. P. Merrill and D. L. Smith, The scattering of deuterium molecular beams from graphite overgrowths on platinum crystals **21** (1970) 186
L. Trilling, The interaction of monatomic inert gas molecules with a continuous elastic solid **21** (1970) 337
O. Meyer, L. Gyulai and J. W. Mayer, Analysis of amorphous layers on silicon by backscattering and channeling effect measurements . . . **22** (1970) 263
J. N. Smith, Jr., J. Wolleswinkel and J. Los, Residence time measurements for the surface ionization of K on W: the effects of surface contaminants **22** (1970) 411
G. M. Pyatigorskii, Thresholds and hysteresis of surface ionization under nonuniform conditions **24** (1971) 255
R. Manson and V. Celli, Inelastic surface scattering of non-penetrating particles **24** (1971) 495
F. O. Goodman, Scattering of atoms by solid surfaces; critical review of the Lennard-Jones, Devonshire and Strachan theory of inelastic gas–surface interactions, and some improvements **24** (1971) 667
D. P. Smith, Analysis of surface composition with low-energy backscattered ions **25** (1971) 171
I. Kuščer, Reciprocity in scattering of gas molecules by surfaces. . . . **25** (1971) 225
R. K. Janev, I. V. Terzić and D. M. Davidović, Transition rates of the

resonant processes in Li^+ and Na^+ ion interaction with Li, W and Mo surfaces **26** (1971) 142
F. O. Goodman, Review of the theory of the scattering of gas atoms by solid surfaces **26** (1971) 327
A. E. Dabiri, T. J. Lee and R. E. Stickney, Spatial and speed distributions of H_2 and D_2 desorbed from a polycrystalline nickel surface. . . . **26** (1971) 522
K. H. Rieder, Vibrational surface thermodynamic functions of magnesium oxide **26** (1971) 637
F. O. Goodman, Exponential and inverse-square attractive potentials in gas-surface interaction theory **27** (1971) 157
P. J. Feibelman, Inclusion of dynamics in the ion–metal surface interaction. I. **27** (1971) 438
D. V. Tendulkar and R. E. Stickney, Diffraction of helium atoms from a tungsten (112) crystal surface **27** (1971) 516
E. K. Stefanakos, A. A. Fadl and R. F. Tinder, Desorption of Na and K from niobium **28** (1971) 221
P. V. S. Rao and J. T. Waber, Surface field analysis of splitting of orbitals of atoms and ions approaching a metal surface **28** (1971) 299
J. F. Cuderman, Cold surface ionization of fast K atoms on Ta and W ribbons **28** (1971) 569
F. O. Goodman, Quantum-mechanical treatment of the one-phonon inelastic scattering of gas atoms in three dimensions by a simplified continuum model of a solid **30** (1972) 1
D. J. Ball, T. M. Buck, D. MacNair and G. H. Wheatley, Investigation of low-energy ion scattering as a surface analytical technique . . . **30** (1972) 69
S. H. A. Begemann and A. L. Boers, Small angle multiple reflection of low energy (6 keV) noble gas ions from single contamination **30** (1972) 134
H. Hoinkes, H. Nahr and H. Wilsch, Reflection, diffraction and selective adsorption of atomic hydrogen on the (001) surface of LiF **30** (1972) 363
H. G. Lintz et A. Pentenero, Etude des interactions chimiques gaz–solide par la technique du faisceau moléculaire: nouvelle interprétation de la réflexion d'un faisceau d'hélium sur une surface de rhénium en présence d'oxygène **30** (1972) 499
G. E. Becker and H. D. Hagstrum, Orbital energy spectra of electrons in chemisorption bonds: O, S, Se on Ni(110) and Ni(111) **30** (1972) 505
F. O. Goodman, Simple model for the velocity distribution of molecules desorbed from surfaces following recombination of atoms **30** (1972) 525

Auger ejection, *see* Auger electron spectroscopy

Auger electron spectroscopy

J. T. Grant and T. W. Haas, A study of Ru(0001) and Rh(111) surfaces using LEED and Auger electron spectroscopy **21** (1970) 76
T. E. Gallon, I. G. Higginbotham, M. Prutton and H. Tokutaka, The (100) surfaces of alkali halides. I. The air and vacuum cleaved surfaces. **21** (1970) 224
H. Tokutaka, M. Prutton, I. G. Higginbotham and T. E. Gallon, The (100) surfaces of alkali halides. II. Electron stimulated dissociation. . **21** (1970) 233
J. P. Coad, H. E. Bishop and J. C. Rivière, Electron-beam assisted adsorption on the Si(111) surface **21** (1970) 253
R. G. Musket, Auger electron spectroscopy study of electron-impact desorption **21** (1970) 440
G. F. Amelio, Band structure of silicon by characteristic Auger electron spectrum analysis **22** (1970) 301

M. F. Chung and L. H. Jenkins, Auger electron energies of the outer shell electrons **22** (1970) 453
C. C. Chang, Contamination on chemically etched silicon surfaces: LEED-Auger method **23** (1970) 283
J. T. Grant and T. W. Haas, Auger electron spectroscopy of Si **23** (1970) 347
H. E. Bishop, J. C. Rivière and J. P. Coad, Auger spectroscopy of titanium **24** (1971) 1
G. Ertl und J. Küppers, Adsorption an Einkristall-Oberflächen von Cu/Ni-Legierungen. I. **24** (1971) 104
L. H. Jenkins and M. F. Chung, LEED and Auger investigations of Cu (111) surface **24** (1971) 125
H. Poppa and A. G. Elliot, The surface composition of mica substrates . **24** (1971) 149
M. Perdereau, Emploi quantitatif de la spectroscopie Auger; étalonnage de la méthode **24** (1971) 239
J. T. Grant and T. W. Haas, Auger electron spectroscopy studies of carbon overlayers on metal surfaces **24** (1971) 332
J. W. T. Ridgway and D. Haneman, Auger spectra and LEED patterns from vacuum cleaved silicon crystals with calibrated deposits of iron . **24** (1971) 451
L. Viermans and J. Vennik, Auger electron emission spectroscopy of the V_2O_5(100) and V(100) surfaces. **24** (1971) 541
C. C. Chang, Auger electron spectrometry. **25** (1971) 53
W. Reuter, Electron probe microanalysis **25** (1971) 80
J. M. Chen, LEED, Auger, and work function studies of clean and Na-covered surfaces of GaAs **25** (1971) 305
J. T. Grant, Some studies on the Ir(111) surface using LEED and Auger electron spectroscopy **25** (1971) 451
P. W. Palmberg, Physical adsorption of xenon on Pd(100) **25** (1971) 598
J. P. Coad and J. C. Rivière, Auger spectroscopy of carbon on nickel . . **25** (1971) 609
K. Jacobi und J. Hölzl, Auger-Elektronen-Emission dünner Kohlenstoff-Folien in Reflexion und Transmission **26** (1971) 54
W. M. Mularie and W. T. Peria, Deconvolution techniques in Auger electron spectroscopy **26** (1971) 125
L. H. Jenkins and M. F. Chung, The energy spectrum of back-scattered electrons and characteristic loss and gain phenomena of the Cu(111) . **26** (1971) 151
R. W. Joyner, C. S. McKee and M. W. Roberts, The adsorption of carbon monoxide on Cu(001); LEED and Auger emission studies **26** (1971) 303
M. Ono, Y. Takasu, K. Nakayama and T. Yamashina, Auger spectroscopy study on copper–nickel alloy surfaces related to the catalysis . . **26** (1971) 313
R. M. Lambert, J. W. Linnett and J. A. Schwarz, Adsorption of oxygen on molybdenum (111): effect of trace impurities **26** (1971) 572
M. F. Chung and L. H. Jenkins, Characteristic energies in secondary electron spectra from Si (111) surfaces **26** (1971) 649
J. T. Grant and T. W. Haas, A study of InAs (111) and $(\bar{1}\bar{1}\bar{1})$ surfaces using LEED and Auger electron spectroscopy **26** (1971) 669
J. W. T. Ridgway and D. Haneman, Auger spectra and LEED patterns from nickel deposits on cleaved silicon **26** (1971) 683
T. Smith, Sputter cleaning and etching of crystal surfaces (Ti, W, Si) monitored by Auger spectroscopy, ellipsometry and work function change **27** (1971) 45
A. G. Jackson and M. P. Hooker, Auger-LEED investigation of Sn on Mo (100) **27** (1971) 197
R. Riwan, La diffusion du soufre vers la face (110) du nickel **27** (1971) 267
R. W. Joyner, C. S. McKee and M. W. Roberts, The interaction of hydrogen sulphide with Cu (001) **27** (1971) 279
G. Dalmai-Imelik, J. C. Bertolini et J. Rousseau, Commentaires sur "Auger spectroscopy of carbon on Ni" de J. P. Coad et J. C. Rivière . **27** (1971) 379

H. P. Bonzel, Auger electron spectroscopy study of a sulfur–oxygen surface reaction on a Cu (110) crystal **27** (1971) 387
B. A. Joyce and J. H. Neave, An investigation of silicon–oxygen interactions using Auger spectroscopy **27** (1971) 499
D. T. Quinto and W. D. Robertson, Identification of Auger spectra from aluminum. **27** (1971) 645
R. M. Lambert, W. H. Weinberg, C. M. Comrie and J. W. Linnett, LEED-Auger investigation of a stable carbide overlayer on a platinum (111) surface **27** (1971) 653
R. J. Fortner and R. G. Musket, Chemical effects on the Auger electron spectra of beryllium **28** (1971) 339
A. G. Jackson and M. P. Hooker, Auger/LEED investigation of the deposition of Al onto the Mo(110) surface **28** (1971) 373
L. H. Jenkins and M. F. Chung, Auger and other characteristic energies in secondary electron spectra from Al surfaces **28** (1971) 409
M. A. Chesters and J. Pritchard, LEED and surface potential study of carbon monoxide and xenon adsorbed on Cu(100) **28** (1971) 460
D. T. Quinto, V. S. Sundaram and W. D. Robertson, Auger spectra of copper–nickel alloys. **28** (1971) 504
S. Thomas and T. W. Haas, Auger spectroscopy study of the adsorption of Rb on Mo(110) **28** (1971) 632
M. F. Chung and L. H. Jenkins, LLM versus LMM Auger transitions for the light elements **28** (1971) 637
T. W. Haas, S. Thomas and G. J. Dooley III, Soft X-ray appearance potential spectroscopy in a display LEED system **28** (1971) 645
R. L. Gerlach, Electron binding energies of Ba from the secondary electron yield spectrum **28** (1971) 648
J. D. Levine, A. Willis, W. R. Bottoms and P. Mark, Correlation of electronic, LEED, and Auger diagnostics on ZnO surfaces . . . **29** (1972) 144
R. S. Zimmer and W. D. Robertson, A carbon structure on the Re (0001) surface **29** (1972) 230
M. Salmerón and A. M. Baró, Experimental observation of chemical shifts in Auger spectrum from surface layers of SiO_2 during electron bombardment **29** (1972) 300
R. L. Gerlach and A. R. DuCharme, Inner shell ionization of surface atoms by electron impact **29** (1972) 317
J. H. Neave, C. T. Foxon and B. A. Joyce, The dependence of Auger electron yield on primary beam energy at normal and glancing incidence **29** (1972) 411
T. L. Bradley, A. E. Dabiri and R. E. Stickney, Measurements of the spatial distribution of H_2 desorbed from Ni surfaces: effects of surface composition and crystal orientation **29** (1972) 590
F. Jona, J. A. Strozier, Jr. and C. Wong, Re-examination of Al (110) with low-energy electron diffraction and Auger spectroscopy . . . **30** (1972) 225
R. C. Henderson and R. F. Helm, Silicon homoepitaxial thin films via silane pyrolysis: a HEED and Auger electron spectroscopy study . . **30** (1972) 310
P. Haymann, Théorie dynamique de l'effet Auger **30** (1972) 536
G. E. Holcombe, Jr., G. L. Powell and R. E. Clausing, Low-energy electron diffraction and Auger emission spectroscopy studies of lithium hydride (100) surface **30** (1972) 561
A. Ignatiev, A. V. Jones and T. N. Rhodin, LEED investigations of xenon single crystal films and their use in studying the Ir(100) surface . **30** (1972) 573
J. P. Coad, Comments on "LLM versus LMM Auger transitions for the light elements" by M. F. Chung and L. H. Jenkins **30** (1972) 687
G. Rovida, E. Zanazzi and E. Ferroni, On the interaction of oxygen

with Si(111) surfaces **30** (1972) 707
B. A. Joyce and J. H. Neave, Reply to Comments on the interaction of oxygen with Si(111) surfaces **30** (1972) 710

Band structure

V. Hoffstein and D S. Boudreaux, Calculation of complex band structures. **21** (1970) 99
I. Bartoš and J. Nadrchal, Complex band structure of Si and Ge with (100)-surface **22** (1970) 290
G. F. Amelio, Band structure of silicon by characteristic Auger electron spectrum analysis **22** (1970) 301

Barium

R. L. Gerlach, Electron binding energies of Ba from the secondary electron yield spectrum **28** (1971) 648

Barium titanate

D. Aberdam, G. Bouchet and P. Ducros, LEED study of surface structures on the (001) face of $BaTiO_3$. **27** (1971) 559
D. Aberdam and C. Gaubert, Study of the temperature dependence of LEED intensities from the (001) surface of $BaTiO_3$ between 20 °C and 650 °C. **27** (1971) 571

Benzene

L. Sogor and A. G. Walton, Mechanism of heterogeneous nucleation I. Vapor–liquid and liquid–solid transformation of benzene catalyzed by KCl **25** (1971) 337

Beryllium

R. J. Fortner and R. G. Musket, Chemical effects on the Auger electron spectra of beryllium. **28** (1971) 339

Boron nitride

B. McCarroll and R. P. Messmer, A molecular orbital approach to chemisorption. III. Atomic H and O on graphitic BN **27** (1971) 451

Cadmium

R. J. H. Voorhoeve, Simplifications and complications of heterogeneous nucleation theory **28** (1971) 145

Cadmium oxide

H. H. Glascock, Jr., Thermionic emission from CaO in Ba vapor . . **29** (1972) 291

Cadmium selenide

E. Guesne, C. Sébenne and M. Balkanski, Electronic surface properties of CdSe single crystals under vacuum or oxygen **24** (1971) 18
M. F. Chung and H. E. Farnsworth, Enhanced oxygen chemisorption on CdSe(0001) by a hot filament **24** (1971) 635

M. F. Chung and H. E. Farnsworth, Effect of bulk resistivity, annealing temperature and illumination on oxygen sorption on CdSe surfaces . **25** (1971) 321
Z. A. Munir, L. S. Seacrist and J. P. Hirth, Morphology of thermally etched basal surfaces of cadmium selenide **28** (1971) 357
V. A. Tyagai and G. Ya. Kolbasov, The contribution of surface states to the charge transport process across CdS, CdSe–electrolyte interface . **28** (1971) 423

Cadmium sulphide

I. B. Ermolovich, G. P. Peka and M. K. Sheinkman, Effect of surface states on luminescent properties of CdS single crystals **24** (1971) 229
W. M. Mularie and W. T. Peria, Deconvolution techniques in Auger electron spectroscopy **26** (1971) 125
C. L. Balestra, J. Łagowski and H. C. Gatos, Determination of surface state energy positions by surface photovoltage spectrometry: CdS . . **26** (1971) 317
J. Łagowski, C. L. Balestra and H. C. Gatos, Photovoltage inversion effect and its application to semiconductor surface studies: CdS . . **27** (1971) 547
V. A. Tyagai and G. Ya. Kolbasov, The contribution of surface states to the charge transport process across CdS, CdSe–electrolyte interface . **28** (1971) 423
S. Baidyaroy, W. R. Bottoms and P. Mark, Photodesorption from CdS . **28** (1971) 517
C. L. Balestra and H. C. Gatos, Contact potential measurements on "clean" CdS surfaces **28** (1971) 563
F. Steinrisser and R. E. Hetrick, Wavelength dependence of the surface photovoltage in vacuum cleaved CdS **28** (1971) 607
S. Baidyaroy, W. R. Bottoms and P. Mark, The influence of surface structure on the chemisorption of oxygen by CdS single crystals . . **29** (1972) 165
J. Łagowski, C. L. Balestra and H. C. Gatos, Determination of surface state parameters from surface photovoltage transients: CdS . . . **29** (1972) 203
J. Łagowski, C. L. Balestra and H. C. Gatos, Electronic characteristics of "real" CdS surfaces **29** (1972) 213
S. Baidyaroy and P. Mark, Analytical and experimental investigation of the effects of oxygen chemisorption on the electrical conductivity of CdS **30** (1972) 53
J. Łagowski and H. C. Gatos, Surface piezoelectric effect in non-centrosymmetric semiconductors: CdS **30** (1972) 491

Cadmium telluride

R. N. Zitter, Raman detection of tellurium layers on surfaces of CdTe . **28** (1971) 325

Capacitance

B. R. Gossick, Electrical characteristics of a metal–semiconductor contact. I **21** (1970) 123
V. N. Dobrovol'skii, G. K. Ninidze and O. S. Zinets, Transverse surface impedance of germanium when generation of nonequilibrium carriers is caused by alternating current **22** (1970) 137
H. Harreis and G. Heiland, Capacitance of metal contacts on clean semiconductor surfaces (ZnO and Si, surface states) **24** (1971) 643
R. L. Meek, n^+Silicon–electrolyte interface capacitance **25** (1971) 526
R. Castagné and A. Vapaille, Description of the SiO_2–Si interface properties by means of very low frequency MOS capacitance measurements **28** (1971) 157
G. F. Amelio, A new method of measuring interface state densities in MIS devices **29** (1972) 125

Carbon

J. L. Illinger and D. Rivin, Desorption of organic adsorbates from carbon. II. Determining kinetic parameters non-isothermally . . . **21** (1970) 169
R. P. Merrill and D. L. Smith, The scattering of deuterium molecular beams from graphite overgrowths on platinum crystals **21** (1970) 186
R. Ash, R. M. Barrer and R. T. Lowson, Diffusion of helium through a microporous carbon membrane **21** (1970) 265
D. J. Miller and D. Haneman, Carbon epr signal from vacuum heated surfaces **24** (1971) 639
J. P. Coad and J. C. Rivière, Auger spectroscopy of carbon on nickel . . **25** (1971) 609
K. Jacobi und J. Hölzl, Auger-Elektronen-Emission dünner Kohlenstoff-Folien in Reflexion und Transmission **26** (1971) 54
G. Dalmai-Imelik, J. C. Bertolini et J. Rousseau, Commentaires sur "Auger spectroscopy of carbon on Ni" de J. P. Coad et J. C. Rivière . **27** (1971) 379
R. C. Seymour and J. C. Wood, Paramagnetic gas adsorption . . . **27** (1971) 605

Catalysis

P. Le Goff et R. Ducros, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. I. Exposé du modèle **21** (1970) 136
P. Le Goff et R. Ducros, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. II. Application aux réactions de l'éthylène sur rhénium et sur tungstène **21** (1970) 153
A. V. Rochlenko and W. A. Lawrenko, Über den Zusammenhang zwischen Energieadsorption und Rekombinationskoeffizient von Gasatomen auf der Oberfläche von Festkörpern **24** (1971) 164
A. Tardif, J. M. Michel et J. Wach, Cinétique de décomposition du pentane sous 10^{-5}–10^{-7} Torr à la surface du tantale et des carbures Ta_2C et TaC, entre 1300 et 2300K **26** (1971) 255
M. Ono, Y. Takasu, K. Nakayama and T. Yamashina, Auger spectroscopy study on copper–nickel alloy surfaces related to the catalysis . . **26** (1971) 313
A. J. Appleby, Brønsted relationships in electrocatalysis **27** (1971) 225

Chalcogenides

M. Green, M. J. Lee and P. R. Simmons, The adsorption of oxygen on clean chalcogenide glass surfaces **23** (1970) 409

Chromium

J. M. Wilson and T. J. Bastow, Surface thermal expansion for Cr(100) and Mo(100) single crystals **26** (1971) 461
D. Tabor, J. M. Wilson and T. J. Bastow, Surface Debye–Waller factors for Cr(100) and Mo(100) **26** (1971) 471
R. L. Park and J. E. Houston, Appearance potential spectroscopy on an austere budget **26** (1971) 664

Cobalt

W. Paik and J. O'M. Bockris, Exact ellipsometric measurement of thickness and optical properties of a thin light-absorbing film without auxiliary measurements **28** (1971) 61
J. Borrajo and J. M. Heras, Electrical conductivity of thin cobalt films . **28** (1971) 132

Conductance

B. R. Gossick, Electrical characteristics of a metal–semiconductor contact. I **21** (1970) 123
E. Demessemaekers, H. Van Hove and A. Neyens, The behaviour of a ZnO surface in a glow discharge **21** (1970) 189
G. Wurzbacher and P. Gebhardt, Interaction of physisorbed oxygen with thin superconducting tin films **21** (1970) 324
J. Kassabov, N. Velchev and S. Kaschieva, Influence of γ radiation on the surface states and hole mobility at the Si–SiO_2 interface . . . **21** (1970) 366
I. M. Ritchie and R. K. Tandon, Some doping studies on the oxidation of zinc on the temperature range 200–390 °C **22** (1970) 199
Z. Bastl, On the demetallization effect of chemisorption **22** (1970) 439
W. M. H. Sachtler, Comments on "On the demetallization effect of chemisorption" by Z. Bastl **22** (1970) 442
H. Ezawa, T. Kuroda and K. Nakamura, Electrons and "surfons" in a semiconductor inversion layer **24** (1971) 654
H. Ezawa, S. Kawaji, T. Kuroda and K. Nakamura, Electron mobility in a semiconductor inversion layer; possible contributions from bulk phonons **24** (1971) 659
G. Wedler und P. Wissmann, Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen **26** (1971) 389
R. F. Egerton and A. J. Crocker, The electrial effect of atomic hydrogen on lead telluride **27** (1971) 117
K. H. Gundlach and J. Hölzl, Logarithmic conductivity of Al–Al_2O_3–Al tunneling junctions produced by plasma- and by thermal oxidation . . **27** (1971) 125
H. Ezawa, S. Kawaji and K. Nakamura, Surfons and the electron mobility in a semiconductor inversion layer **27** (1971) 218
F. A. Otter, Jr., H. C. Abbink and O. L. de Lange, Possibility of a surface-stabilized compound of Au and Si on Si surfaces **27** (1971) 273
T. Wolfram, R. E. DeWames, W. F. Hall and P. W. Palmberg, Surface magnetization near the critical temperature and the temperature dependence of magnetic-electron scattering from NiO **28** (1971) 45
J. Borrajo and J. M. Heras, Electrical conductivity of thin cobalt films . **28** (1971) 132
S. Baidyaroy, W. R. Bottoms and P. Mark, The influence of surface structure on the chemisorption of oxygen by CdS single crystals . . **29** (1972) 165
S. Baidyaroy and P. Mark, Analytical and experimental investigation of the effects of oxygen chemisorption on the electrical conductivity of CdS **30** (1972) 53
Z. Bastl, Comments on "Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen" by G. Wedler and P. Wissmann **30** (1972) 245
G. L. Hunt and I. M. Ritchie, The effect of traces of iodine on the oxidation rate of aluminium **30** (1972) 475
J. J. Harris and A. J. Crocker, The effect of surface states on the transport coefficients of thin semiconductor films **30** (1972) 692

Contact angle

C. Maze and G. Burnet, Modifications of a non-linear regression technique used to calculate surface tension from sessile drops **24** (1971) 335
H. K. Livingston and C. S. Swingley, Contact angles in controlled atmospheres: some theoretical considerations **24** (1971) 625

Contact potential

A. G. Fedorus and A. G. Naumovets, Cesium on tungsten (001) face; structure and work function **21** (1970) 426
C. W. Jowett and B. J. Hopkins, Work function changes due to the adsorption of chlorine, bromine and iodine on tungsten single crystal surfaces **22** (1970) 392
B. J. Hopkins, C. B. Williams and P. C. Wilmer, Chemical and physical adsorption of oxygen on the (110) plane of tungsten **25** (1971) 633
M. Bacal and M. Cristescu, The effect of electron reflection on the magnetron cut-off characteristic **26** (1971) 230
J. H. Dinan, L. K. Galbraith and T. E. Fischer, Electronic properties of clean cleaved {110} GaAs surfaces **26** (1971) 587
T. A. Delchar, Oxygen chemisorption on copper single crystals . . . **27** (1971) 11
D. L. Adams and L. H. Germer, Adsorption on single-crystal plane of tungsten. I. Nitrogen **27** (1971) 21
B. R. Gossick, Electrical characteristics of a metal–semiconductor contact. III **28** (1971) 469
C. L. Balestra and H. C. Gatos, Contact potential measurements on "clean" CdS surfaces **28** (1971) 563
L. K. Galbraith and T. E. Fischer, Temperature- and illumination-dependence of the work function of gallium arsenide **30** (1972) 185
J. Łagowski and H. C. Gatos, Surface piezoelectric effect in non-centrosymmetric semiconductors: CdS **30** (1972) 491

Contacts

B. R. Gossick, Electrical characteristics of a metal–semiconductor contact. I **21** (1970) 123
W. Mönch, On metal–semiconductor surface barriers **21** (1970) 443
H. Harreis and G. Heiland, Capacitance of metal contacts on clean semiconductor surfaces (ZnO and Si, surface states) **24** (1971) 643
B. R. Gossick, Electrical characteristics of a metal–semiconductor contact. II **25** (1971) 465
B. R. Gossick, Electrical characteristics of a metal–semiconductor contact. III **28** (1971) 469

Copper

H. P. Bonzel, A surface diffusion mechanism at high temperature. . . **21** (1970) 45
D. E. Andersson and S. Andersson, Two-dimensional layers of tellurium on a copper (001) surface **23** (1970) 311
L. H. Jenkins and M. F. Chung, LEED and Auger investigations of Cu (111) surface **24** (1971) 125
Th. Heumann und In-Hyung Moon, Sauerstoffadsorption auf Kupfer und Bestimmung des Rauhigkeitsfaktors **24** (1971) 370
J. Perdereau and G. E. Rhead, LEED studies of adsorption on vicinal copper surfaces **24** (1971) 555
P. J. Jennings, Surface barrier effects in low-energy electron diffraction . **25** (1971) 513
L. H. Jenkins and M. F. Chung, The energy spectrum of back-scattered electrons and characteristic loss and gain phenomena of the Cu(111) . **26** (1971) 151
R. W. Joyner, C. S. McKee and M. W. Roberts, The adsorption of carbon monoxide on Cu (001); LEED and Auger emission studies . . . **26** (1971) 303
G. Capart, Dynamical calculations of LEED intensities at clean copper (001) surfaces **26** (1971) 429

T. A. Delchar, Oxygen chemisorption on copper single crystals . . **27** (1971) 11
P. J. Jennings, A spin-dependent treatment of surface-state resonances in LEED **27** (1971) 221
R. W. Joyner, C. S. McKee and M. W. Roberts, The interaction of hydrogen sulphide with Cu (001) **27** (1971) 279
H. P. Bonzel, Auger electron spectroscopy study of a sulfur–oxygen surface reaction on a Cu (001) crystal **27** (1971) 387
H. G. Tompkins and R. G. Greenler, Experimental development of reflection–absorption spectroscopy: infrared spectrum of carbon monoxide adsorbed on copper and copper oxide **28** (1971) 194
F. Delamare and G. E. Rhead, Increase in the surface self-diffusion of copper due to the chemisorption of halogens **28** (1971) 267
M. A. Chesters and J. Pritchard, LEED and surface potential study of carbon monoxide and xenon adsorbed of Cu(100) **28** (1971) 460
D. T. Quinto, V. S. Sundaram and W. D. Robertson, Auger spectra of copper–nickel alloys. **28** (1971) 504
J. Henrion and G. E. Rhead, LEED studies of the first states of deposition and melting of lead on low index faces of copper **29** (1972) 20
Y. de Ribaupierre et J.-P. Borel, Etats d'adsorption à faible densité du potassium sur le cuivre **29** (1972) 265
R. J. Reid, LEED studies on the low index faces of copper. I. The room temperature intensity–energy spectra **29** (1972) 603
R. J. Reid, LEED studies on the low index faces of copper. II. The effects of temperature on the intensity–energy spectra **29** (1972) 623
S. H. A. Begemann and A. L. Boers, Small angle multiple reflection of low energy (6 keV) noble gas ions from single crystal surfaces as a means to study texture and contamination **30** (1972) 134
H. Taub, Surface barrier effects in the inelastic collision model of low energy electron diffraction **30** (1972) 161
F. Grønlund and P. Højlund Nielsen, Surface structures formed upon oxidation of the (111), (100), and (110) faces of copper **30** (1972) 388

Copper oxide

H. G. Tompkins and R. G. Greenler, Experimental development of reflection–absorption spectroscopy: infrared spectrum of carbon monoxide adsorbed on copper and copper oxide. **28** (1971) 194

Crystallization

N. Mancini and E. Rimini, Annealing of polycrystalline Au and Au–Ag thin films **22** (1970) 357
A. Pavlovska and D. Nenow, Experimental investigation of the surface melting of equilibrium form faces of diphenyl **27** (1971) 211
A. Masson, J. J. Métois et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. I. Partie expérimentale . . **27** (1971) 463
R. Kern, A. Masson et J. J. Métois, Migration brownienne de cristallites sur une surface et relation avex l'épitaxie. II. Partie théorique . . . **27** (1971) 483
Z. A. Munir, L. S. Seacrist and J. P. Hirth, Morphology of thermally etched basal surfaces of cadmium selenide **28** (1971) 357

Diffusion

R. Ash, R. M. Barrer and R. T. Lowson, Diffusion of helium through a microporous carbon membrane **21** (1970) 265

Diphenyl

A. Pavlovska and D. Nenow, Experimental investigation of the surface melting of equilibrium form faces of diphenyl **27** (1971) 211

Electron diffraction, *see also* Low-energy electron diffraction

D. L. Fehrs, T. J. Lee, B. J. Hopkins and R. E. Stickney, Comments on "An electron diffraction study of cesium adsorption on tungsten" . . **21** (1970) 197
P. J. Jennings and E. G. McRae, Electron diffraction at crystal surfaces. IV. Computation of LEED intensities for "muffin-tin" models with application to tungsten (001) **23** (1970) 363
M. R. Leggett and R. A. Armstrong, A study of hydrogen adsorption on a (100) tungsten surface using a simple HEED system **24** (1971) 404
G. E. Hill, I. Marklund and J. Martinson, Simultaneous LEED and RHEED studies of the growth of zirconium on the tungsten (100) surface **24** (1971) 435
P. J. Estrup and E. G. McRae, Surface studies by electron diffraction . . **25** (1971) 1
M. Kostelitz et J. Oudar, Étude thermodynamique et structurale de l'adsorption dans le système or–soufre **27** (1971) 176
B. J. Hopkins, M. Leggett and G. D. Watts, A RHEED study of the adsorption of oxygen, hydrogen, nitrogen and water vapour on the (100) face of tantalum **28** (1971) 581
P. B. Sewell, D. F. Mitchell and M. Cohen, A kinetic study of the inital oxidation of a Ta(110) surface using oxygen K_α X-ray emission. . . **29** (1972) 173
K. J. Matysik, A hydrogen superstructure on W(110) **29** (1972) 324
R. C. Henderson and R. F. Helm, Silicon homoepitaxial thin films via silane pyrolysis: a HEED and Auger electron spectroscopy study . . . **30** (1972) 310
F. Grønlund and P. E. Højlund Nielsen, Surface structures formed upon oxidation of the (111), (100), and (110) faces of copper **30** (1972) 388

Electron emission, *see also* Emission, Photoelectric emission

W. C. Niehaus and E. A. Coomes, Surface-barrier analysis for niobium and tantalum and tantalum-on-niobium from periodic deviations in the thermionic Schottky effect **27** (1971) 256
D. R. Arnott and J. A. Ramsey, Electron emission from anodically oxidised aluminium due to tensile deformation **28** (1971) 1
W. M. Gersbacher, Jr. and T. O. Woodruff, Thickness effects in thin films **28** (1971) 489
I. Giaever, A simple model of electron emission through adsorbed molecules **29** (1972) 1

Electron microscopy

F. Okuyama, Electron microscopic observation of the shape of field emission cathode tips **22** (1970) 1
H. J. Wasserman and J. S. Vermaak, On the determination of a lattice contraction in very small silver particles **22** (1970) 164
N. Mancini and E. Rimini, Annealing of polycrystalline Au and Au–Ag thin films **22** (1970) 357
G. W. Kammlott, Some aspects of scanning electron microscopy . . . **25** (1971) 120
Vu Thien Binh, A. Piquet, H. Roux, R. Uzan et M. Drechsler, Evolutions morphologiques des pointes métalliques par traitement thermique (vérification de la théorie de Nichols et Mullins) **25** (1971) 348

F. A. Otter, Jr., H. C. Abbink and O. L. de Lange, Possibility of a surface-stabilized compound of Au and Si on Si surfaces **27** (1971) 273
W. J. Dunning and M. A. Savva, Secondary cleavage in muscovite mica . **27** (1971) 672
Z. A. Munir, L. S. Seacrist and J. P. Hirth, Morphology of thermally etched basal surfaces of cadmium selenide. **28** (1971) 357
T. Baird, J. R. Fryer and E. V. Riddell, Oxidation of thin tin films . . **28** (1971) 525
A. E. B. Presland, G. L. Price and D. L. Trimm, Hillock formation by surface diffusion on thin silver films **29** (1972) 424
A. E. B. Presland, G. L. Price and D. L. Trimm, The role of microstructure and surface energy in hole growth and island formation in thin silver films **29** (1972) 435
R. C. Cinti and B. K. Chakraverty, The growth of silver films on silica in ultra-high vacuum. I. Experimental – growth model **30** (1972) 109
Wm. H. Krueger and S. R. Pollack, The initial oxidation of aluminum thin films at room temperature **30** (1972) 263

Electron paramagnetic resonance, *see* Paramagnetic resonance

Electron probe microanalysis

W. Reuter, Electron probe microanalysis **25** (1971) 80

Electron reflection, *see also* Electron scattering

M. Bacal and M. Cristescu, The effect of electron reflection on the magnetron cut-off characteristic **26** (1971) 230
E. G. McRae and G. H. Wheatley, Observations of electron reflection at tungsten (001) surface in the energy range 1–10 eV **29** (1972) 342

Electron scattering

P. S. P. Wei, Electron impact of insulator surfaces: LiF and NaF . . . **24** (1971) 219
L. H. Jenkins and M. F. Chung, The energy spectrum of back-scattered electrons and characteristic loss and gain phenomena of the Cu(111) . **26** (1971) 151
M. F. Chung and L. H. Jenkins, Characteristic energies in secondary electron spectra from Si(111) surfaces **26** (1971) 649
Y. C. Cheng, On the scattering of electrons in magnetic and electric surface states by surface roughness **27** (1971) 663
P. S. P. Wei and A. W. Smith, Energy dependence of plasmon excitations in silicon by back-scattered low energy electrons. **27** (1971) 675
C. R. Brundle, Electron spectroscopy of surfaces. **27** (1971) 681
T. Wolfram, R. E. DeWames, W. F. Hall and P. W. Palmberg, Surface magnetization near the critical temperature and the temperature dependence of magnetic-electron scattering from NiO **28** (1971) 45
J. Cazaux, Dispersion of the surface "plasma" losses in semiconductors . **29** (1972) 114
M. Fink, M. R. Martin and G. A. Somorjai, Comparison of backscattering intensities for low energy electron from various surface atoms (H, Li, Be, C, O, Al, Si, S, V, Cr, Ni, Cu, Ag, Pt, Au). **29** (1972) 303
R. L. Gerlach and A. R. DuCharme, Inner shell ionization of surface atoms by electron impact **29** (1972) 317

Electron spin resonance, *see* Paramagnetic resonance

Ellipsometry

J. D. E. McIntyre and D. E. Aspnes, Differential reflection spectroscopy of very thin surface films **24** (1971) 417
T. Smith, Sputter cleaning and etching of crystal surfaces (Ti, W, Si) monitored by Auger spectroscopy, ellipsometry and work function change . **27** (1971) 45
F. Meyer, E. E. de Kluizenaar and G. A. Bootsma, Ellipsometry and the clean surfaces of silicon and germanium **27** (1971) 88
F. Meyer, Ellipsometric study of adsorption complexes on silicon . . . **27** (1971) 107
W. Paik and J. O'M. Bockris, The effect of electromodulation upon ellipsometric measurements of adsorption in the double layer **27** (1971) 191
W. Paik and J. O'M. Bockris, Exact ellipsometric measurement of thickness and optical properties of a thin light-absorbing film without auxiliary measurements **28** (1971) 61
K. Vedam and S. S. So, Characterization of real surfaces by ellipsometry . **29** (1972) 379
V. Brusic, M. A. Genshaw and J. O'M. Bockris, On the possible influence of surface roughening on ellipsometric data in electrochemical studies **29** (1972) 653
F. Lukeš, Oxidation of Si and GaAs in air at room temperature **30** (1972) 91
R. M. A. Azzam and N. M. Bashara, Equi-azimuth and equi-ellipticity contour charts for ellipsometry **30** (1972) 101
M. M. Ibrahim and N. M. Bashara, Ellipsometric study of 400 eV ion damage in silicon **30** (1972) 632
M. M. Ibrahim and N. M. Bashara, Ellipsometric study of cleaning silicon by ion bombardment and heating in vacuum **30** (1972) 680

Emission, *see also* Electron emission, Field emission, Photoelectric emission

I. Terzić and B. Perović, Spectral analysis of light emitted from metallic targets bombarded by high energy ions **21** (1970) 96
G. M. Pyatigorskii, Thresholds and hysteresis of surface ionization under nonuniform conditions **24** (1971) 255
R. G. Wilson, Surface ionization hysteresis phenomena **25** (1971) 385
R. K. Janev, I. V. Terzić and D. M. Davidović, Transition rates of the resonant in Li^+ and Na^+ ion interaction with Li, W and Mo surfaces . **26** (1971) 142
F. M. Gardner, F. E. Girouard, W. L. Boeck and E. A. Coomes, Thermionic emission from single-crystal filaments **26** (1971) 605
T. T. Yang and J. J. Yang, Theoretical investigation of thermionic and photoelectric emission from semiconductors in the region of Schottky deviation **27** (1971) 349
A. Benninghoven, Beobachtung von Oberflächenreaktionen mit der statischen Methode der Sekundärionen-Masenspektroskopie. I. Die Methode **28** (1971) 541
H. H. Glascock, Jr., Thermionic emission from CaO in Ba vapor . . . **29** (1972) 291

Epitaxy

E. F. Wassermann and H. P. Jablonski, Epitaxial growth of iron on (100)- and (111)-gold substrates **22** (1970) 69
H. Sato and S. Shinozaki, Interfacial energy as a factor in controlling epitaxial behavior **22** (1970) 229
M. Kuisl und F. Wilhelm, Untersuchungen an Zinndioxidschichten . . **22** (1970) 253
R. N. Thomas and H. E. Francombe, Influence of impurities on the surface structures and fault generation in homoepitaxial Si(111) films . . . **25** (1971) 357

M. Cahoreau et M. Gillet, Interprétation de la croissance d'un dépôt épitaxique métallique sur un métal à partir du modèle de dislocations interfaciales **26** (1971) 415
M. Green, The surface structure of KCl and PbTe films grown on mica . . **26** (1971) 549
A. Masson, J. J. Métois et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. I. Partie expérimentale . . **27** (1971) 463
R. Kern, A. Masson et J. J. Métois, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. II. Partie théorique . . . **27** (1971) 483
E. F. Wasserman and K. A. Polacek, Low temperature epitaxy of Au on ZnO **28** (1971) 77
G. Pilkington and J. P. Hirth, Epitaxial deposition of silver on molybdenite **29** (1972) 363
A. T. Fromhold, Jr., Stress in dielectric contact layers on metals . . . **29** (1972) 396
J. J. Métois, M. Gauch, A. Masson et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. III. Cas de l'aluminium sur KCl; précisions sur le mécanisme de glissement **30** (1972) 43
R. C. Henderson and R. F. Helm, Silicon homoepitaxial thin films via silane pyrolysis: a HEED and Auger electron spectroscpoy study . . . **30** (1972) 310
E. Al Khoury Nemeh, R. C. Cinti et Nguyen T. T. A., Epitaxie du plomb sur le nickel (111) **30** (1972) 697

Etching

C. Lea and C. H. B. Mee, Thermal etching of (100), (110) and (113) oriented faces of tungsten single crystals **25** (1971) 332
Z. A. Munir, L. S. Seacrist and J. P. Hirth, Morphology of thermally etched basal surfaces of cadmium selenide **28** (1971) 357
C. Fischer and E. Heasell, The formation of thermal etch patterns during diffusion in indium antimonide. **30** (1972) 592

Ethylene

P. Le Goff et R. Ducros, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. I. Exposé du modèle **21** (1970) 136
P. Le Goff et R. Ducros, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. II. Application aux réactions de l'éthylène sur rhénium et sur tungstène **21** (1970) 153

Ethyl xanthate

S. R. Rao, Thermodynamic analysis of ethyl xanthate adsorbed at galena surface **21** (1970) 413

Evaporation

D. McKinstry, An examination of field evaporation theory **29** (1972) 37
S. B. Brumbach and G. M. Rosenblatt, Factors determining residence lifetimes of As_4 molecules on an arsenic(111) surface. **29** (1972) 555
M. Balooch, A. E. Dabiri and R. E. Stickney, Measurements of the speed and spatial distributions of arsenic molecules evaporated from an As (111) crystal **30** (1972) 483

Field effect

H. J. Van Hove, Slow field induced relaxation on pure and Li-doped ZnO . **22** (1970) 76
E. Preuss, Field-effect changes of the galvanomagnetic properties of a semiconductor **22** (1970) 187
E. Preuss, Field-effect at indium antimonide in a magnetic field **24** (1971) 515
T. M. Valahas, J. S. Sochanski and H. C. Gatos, Electrical characteristics of gallium arsenide "real" surfaces **26** (1971) 41
J. Shappir, Determination of the surface barrier height by combined measurements of surface photovoltage and field effect **26** (1971) 545
S. G. Davison and K. P. Tan, Surface field effects on Tamm states . . . **27** (1971) 297
S. N. Kozlov, V. F. Kiselev and Yu. F. Novototskii-Vlasov, Investigation of long-term processes on a real germanium surface **28** (1971) 395

Field emission, *see also* Field ion microscopy

G. D. W. Smith and J. S. Anderson, Field emission and field ion microscope studies of the epitaxial growth of nickel on tungsten **24** (1971) 459

Field evaporation, *see* Field emission

Field ionization, *see* Field emission, Field ion microscopy

Field ion microscopy, *see also* Field emission

H. A. M. van Eekelen, The behaviour of the field-ion microscope: a gas dynamical calculation **21** (1970) 21
D. W. Bassett, Field ion microscope studies iridium adatom clusters on (110) tungsten surfaces **21** (1970) 181
L. Ernst, On the field evaporation of silicon **21** (1970) 193
K. D. Rendulic, A comparison between FIM and LEED studies of surface reconstruction **21** (1970) 401
F. Okuyama, Electron microscopic observation of the hape of field emission cathode tips **22** (1970) 1
B. A. Politzer and P. H. Cutler, A model calculation of field emission from 3d bands in nickel **22** (1970) 277
R. Gomer, Comment on "Effect of atomic cores on electron tunneling through layers of neutral adsorbates" by A. Modinos **22** (1970) 445
A. Modinos, Further remarks on electron tunneling through layers of neutral adsorbates **22** (1970) 447
L. W. Swanson and L. C. Crouser, The effect of polyatomic adsorbates on the total energy distribution of field emitted electrons **23** (1970) 1
S. P. Sharma, S. J. Fonash and G. L. Schrenk, The electron transfer process in field ionization **23** (1970) 30
J. W. Gadzuk, A comparison between the Fermi–Thomas and quantum dielectric response of a metal surface to a static point charge . . . **23** (1970) 58
F. W. Röllgen and H. D. Beckey, Surface reactions induced by field ionization or organic molecules **23** (1970) 69
S. S. Brenner and J. T. McKinney, Construction and performance of an FIM-atom probe **23** (1970) 88
E. W. Müller, S. V. Krishnaswamy and S. B. McLane, Atom-probe FIM analysis of the interaction of the imaging gas with the surface . . **23** (1970) 112
B. Ralph, The metallurgical applications of the field-ion microscope . . **23** (1970) 130

B. G. LeFevre, Field-ion studies of microstructures and transformations in long-range-ordered alloys **23** (1970) 144
H. N. Southworth, FIM contrast from lattice defects in ordered alloys . **23** (1970) 160
U. T. Son and J. J. Hren, Measurements of atomic order with the field-ion microscope **23** (1970) 177
P. J. Birdseye and D. A. Smith, The electric field and the stress on a field-ion specimen **23** (1970) 198
T. F. Page and B. Ralph, The direct observation of single slip steps on iridium **23** (1970) 211
R. J. Bayuzick and R. S. Goodrich, Observations of grain boundaries with the field ion microscope **23** (1970) 225
D. W. Bassett, The use of field ion microscopy in studies of the vapour deposition of metals **23** (1970) 240
G. D. W. Smith and J. S. Anderson, Field emission and field ion microscope studies of the epitaxial growth of nickel on tungsten . . . **24** (1971) 459
E. Sugata, S. Ishii and K. Masui, Initial growth of platinum crystals on the tungsten surface as observed by the field-ion microscope **24** (1971) 612
E. Sugata and S. Ishii, A method for the continuous observation of the oxygen adsorption phenomena in the field ion microscope **24** (1971) 663
Ch. Kleint, Surface diffusion model of adsorption-induced field emission flicker noise. I. Theory **25** (1971) 394
Ch. Kleint, Surface diffusion model of adsorption-induced field emission flicker noise. II. Experiments **25** (1971) 411
M. Pichaud, A. Müller and M. Drechsler, Temperature distribution along metal tips (for field emission microscopy and the study of surface phenomena) **26** (1971) 14
Y. C. Chen and D. N. Seidman, On the atomic resolution of a field ion microscope **26** (1971) 61
F. W. Röllgen and H. D. Beckey, Field induced chemisorption and promoted field ionization **26** (1971) 100
R. L. Lewis and R. Gomer, Adsorption studies in the field ion microscope with argon imaging **26** (1971) 197
W. Schmidt, Th. Reisner and E. Krautz, Field ion microscopic observation of interaction phenomena of neon atoms with platinum and platinum–gold alloy surfaces **26** (1971) 297
J. R. Anderson and N. Thompson, Study of adsorption of titanium on tungsten and rhenium by field electron emission **26** (1971) 397
R. A. Collins, Silicon adsorption on tungsten field emitters **26** (1971) 624
O. Nishikawa and K. D. Rendulic, Some FIM observations on gold-welding of metals **26** (1971) 677
Y. C. Chen and D. N. Seidman, The field ionization characteristics of individual atomic planes **27** (1971) 231
S. B. McLane, E. W. Müller and S. V. Krishnaswamy, Time dependence of field ionization following the evaporation pulse in the atom-probe FIM **27** (1971) 367
J. H. Block and M.-S. Zei, Desorption of carbonium ions from zeolite surfaces; a comparison of reactive surface ionization with field ionization . **27** (1971) 419
F. Okuyama, Preliminary study of KCl by field-emission microscopy . . **27** (1971) 635
R. G. Forbes, Field-ion imaging theory; on the visibility of adsorbates . . **27** (1971) 659
D. G. Ast and D. N. Seidman, Noble gas imaging of gold in the field ion microscope **28** (1971) 19
T. E. Schmid and R. W. Balluffi, Formation and migration of artifact vacancies induced on gold surfaces by neon field ion microscopy . **28** (1971) 32
J. R. Anderson and N. Thompson, Adsorption of Cl_2 on titanium studied by field emission microscopy **28** (1971) 84

M. A. Fortes, The shape field-evaporated metal tips **28** (1971) 95
M. A. Fortes, General properties of the field-ion image projection . . **28** (1971) 117
K. D. Rendulic, Measurements on field adsorption of neon and helium and the field ionization of a helium–neon mixture **28** (1971) 285
T. T. Tsong, On field ionization enhancement by field adsorption of inert gas atoms **28** (1971) 651
I. Giaever, A simple model of electron emission through adsorbed molecules **29** (1972) 1
D. McKinstry, An examination of field evaporation theory **29** (1972) 37
R. Klein, Preparation of contiguous chemisorbed adlayers by sequential deposition and surface migration **29** (1972) 309
J. J. Hren A. J. W. Moore and J. A. Spink, Anomalous FIM images of tungsten **29** (1972) 331
H. E. Grenga and R. Kumar, Hydrogen-ion microscopy of titanium . . **29** (1972) 447
S. Hellwig und J. H. Block, Die Feldemission des Wolframs nach der Adsorption von Kohlenwasserstoffen **29** (1972) 523
N. V. Mileshkina and R. Z. Bakhtizin, Oxygen adsorption on the atomically clean surface of germanium field emitter **29** (1972) 644
M. Sato, Saturated state of hydrogen on tungsten at room temperature . **29** (1972) 667

Flash desorption

R. R. Rye and B. D. Barford, Flash desorption of hydrogen on tungsten (211) **27** (1971) 667
J. T. Yates, Jr. and T. E. Madey, The adsorption of methane by tungsten (100) **28** (1971) 437

Gallium arsenide

M. Henzler, Texture of surfaces cleaned by ion bombardment and annealing **22** (1970) 12
J. M. Chen, LEED, Auger, and work function studies of clean and Na-covered surfaces of GaAs **25** (1971) 305
J. M. Chen, A proposed model for the Cs–O covered semiconductor photocathodes **25** (1971) 457
T. M. Valahas, J. S. Sochanski and H. C. Gatos, Electrical characteristics of gallium arsenide "real" surfaces **26** (1971) 41
J. H. Dinan, L. K. Galbraith and T. E. Fischer, Electronic properties of clean cleaved {110} GaAs surfaces **26** (1971) 587
G. J. Russell and D. Haneman, Oxygen adsorption on vacuum cleaved GaAs at liquid nitrogen temperatures by LEED **27** (1971) 362
M. J. Katz, D. C. Fox and K. J. Haas, The effect of adsorbed water on the surface photovoltage of GeAs **28** (1971) 627
F. Lukeš, Oxidation of Si and GaAs in air at room temperature . . . **30** (1972) 91
L. K. Galbraith and T. E. Fischer, Temperature- and illumination-dependence of the work function of gallium arsenide **30** (1972) 185

Germanium

D. L. Heron and D. Haneman, Two–centre theory of large surface unit cells on semiconductors **21** (1970) 12
V. N. Dobrovol'skii, G. K. Ninidze and O. S. Zinets, Transverse surface impedance of germanium when generation of nonequilibrium carriers is caused by alternating current **22** (1970) 137

I. Bartoš and L. Nadrchal, Complex band structure of Si and Ge with (100)-surface **22** (1970) 290
Y. Margoninski and L. G. Feinstein, LEED patterns and electrical conductance of gold plated germanium surfaces. **23** (1970) 458
J. J. Łagowski, A. Morawski and J. J. Sochański, Surface piezoresistance in germanium **23** (1970) 463
M. Henzler, The effect of oxygen on surface structure and surface states of cleaved germanium (111) faces **24** (1971) 209
R. J. Madix and J. A. Schwarz, Chemical relaxation molecular beam studies of reactive gas–solid scattering. I. Reaction of silicon and germanium with molecular chlorine **24** (1971) 264
R. J. Madix, R. Parks, A. A. Susu and J. A. Schwarz, Chemical relaxation molecular beam studies of reactive gas–solid scattering. II. Reaction of ozone with heated germanium surfaces **24** (1971) 288
F. Jona and H. R. Wendt, Radioactive method for the determination of sticking coefficients: Ge on Ge {111} **24** (1971) 343
W. E. Tefft and K. R. Armstrong, Shallow donor surface impurity levels in Si and Ge **24** (1971) 535
J. Sochański, J. Łagowski and A. Morawski, Surface piezoresistance in germanium and silicon **25** (1971) 552
M. Henzler, The origin of surface states **25** (1971) 650
F. Meyer, E. E. de Kluizenaar and G. A. Bootsma, Ellipsometry and the clean surfaces of silicon and germanium **27** (1971) 88
S. N. Kozlov, V. F. Kiselev and Yu. F. Novototsky-Vlasov, Investigation of long-term processes on a real germanium surface . . . **28** (1971) 395
Y. Margoninski, The influence of inelastic electron processes on LEED beam intensities during adsorption studies **29** (1972) 355
N. V. Mileshkina and R. Z. Bakhtizin, Oxygen adsorption on the atomically clean surface of germanium field emitter **29** (1972) 644

Glass

B. Kindl, E. Negri and G. F. Cerofolini, Adsorption isotherms of noble gases on glasses **23** (1970) 299
M. Green, M. J. Lee and P. R. Simmons, The adsorption of oxygen on clean chalcogenide glass surfaces **23** (1970) 409

Gold

E. F. Wassermann and H. P. Jablonski, Epitaxial growth of iron on (100)- and (111)-gold substrates **22** (1970) 69
R. A. Fredlein, A. Damjanovic and J. O'M. Bockris, Differential surface tension measurements at thin solid metal electrodes **25** (1971) 261
M. Cahoreau et M. Gillet, Interprétation de la croissance d'un dépôt épitaxique métallique sur un métal à partir du modèle de dislocations interfaciales **26** (1971) 415
M. Kostelitz et J. Oudar, Étude thermodynamique et structurale de l'adsorption dans le système or–soufre **27** (1971) 176
Woon-Kie Paik and J. O'M. Bockris, The effect of electromodulation upon ellipsometric measurements of adsorption in the double layer **27** (1971) 191
F. A. Otter, Jr., H. C. Abbink and O. L. de Lange, Possibility of a surface-stabilized compound of Au and Si on Si surfaces **27** (1971) 279
A. Masson, J. J. Métois et R. Kern, Migration brownienne de cristallites sur une surface et relation aves l'épitaxie. I. Partie expérimentale . . **27** (1971) 463

R. Kern, A. Masson et J. J. Métois, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. II. Partie théorique. . . **27** (1971) 483
D. G. Ast and D. N. Seidman, Noble gas imaging of gold in the field ion microscope **28** (1971) 19
T. E. Schmid and R. W. Balluffi, Formation and migration of artifact vacancies induced on gold surfaces by neon field ion microscopy . . **28** (1971) 32
E. F. Wassermann and K. A. Polacek, Low temperature epitaxy of Au on ZnO **28** (1971) 77
D. M. Kolb and J. D. E. McIntyre, Spectrophotometric determination of the optical properties of an adsorbed oxygen layer on gold . . **28** (1971) 321
R. W. Vook, S. Ouyang and M. A. Otooni, X-ray measurement of the (111) surface relaxation in gold **29** (1972) 277

Graphite

P. J. Birdseye and D. A. Smith, The electric field and the stress on a field-ion specimen **23** (1970) 198
A. J. Bennett, B. McCarroll and R. P. Messmer, A molecular orbital approach to chemisorption. I. Atomic hydrogen on graphite . . . **24** (1971) 191
A. D. Crowell, Van der Waals potential for nitrogen interacting with graphite **24** (1971) 651
J. P. Biberian and M. Bienfait, Entropy of the (00.1) face of graphite . . **30** (1972) 242
C. E. Brown and P. G. Hall, Reaction of nitric oxide with a graphite surface, and the adsorptive properties of the resultant surface . . . **30** (1972) 379

Hydrocarbons

D. F. Ollis and M. Boudart, Surface and bulk carburization of tungsten single crystals **23** (1970) 320
A. Tardif, J. M. Michel et J. Wach, Cinétique de décomposition du pentane sous 10^{-5}-10^{-7} Torr à la surface du tantale et des carbures Ta_2C et TaC, entre 1300 et 2300 K **26** (1971) 255

Indium

W. M. Mularie and W. T. Peria, Deconvolution techniques in Auger electron spectroscopy **26** (1971) 125

Indium antimonide

E. Preuss, Field-effect changes of the galvanomagnetic properties of a semiconductor **22** (1970) 187
E. Preuss, Field-effect at indium antimonide in a magnetic field **24** (1971) 515
C. Fischer and E. Heasell, The formation of thermal etch patterns during diffusion in indium antimonide **30** (1972) 592

Indium arsenide

J. T. Grant and T. W. Haas, A study of InAs (111) and $(\bar{1}\bar{1}\bar{1})$ surfaces using LEED and Auger electron spectroscopy **26** (1971) 669

Infrared spectroscopy

H. G. Tompkins and R. G. Greenler, Experimental development of re-

flection–absorption spectroscopy: infrared spectrum of carbon monoxide adsorbed on copper and copper oxide **28** (1971) 194
J. T. Yates, Jr. and D. A. King, Chemisorption of carbon monoxide on tungsten: correlation of reflection–absorption infrared spectra with CO binding state population **30** (1972) 601

Iridium

T. F. Page and B. Ralph, The direct observation of single slip steps on iridium **23** (1970) 211
J. T. Grant, Some studies on the Ir(111) surface using LEED and Auger electron spectroscopy **25** (1971) 451
A. Ignatiev, A. V Jones and T. N. Rhodin, LEED investigations of xenon single crystal films and their use in studying the Ir (100) surface . **30** (1972) 573

Iron

E. F. Wassermann and H. P. Jablonski, Epitaxial growth of iron on (100)- and (111)-gold substrates **22** (1970) 69
M. Cahoreau et M. Gillet, Interprétation de la croissance d'un dépôt épitaxique métallique sur un métal à partir du modèle de dislocations interfaciales **26** (1971) 415
S. Kato and H. Kobayashi, LEED study of iron single crystal surfaces . **27** (1971) 625

Lead

J. Henrion and G. E. Rhead, LEED studies of the first states of deposition and melting of lead on flow index faces of copper. **29** (1972) 20
E. Al Khoury Nemeh, R. C. Cinti et Nguyen T. T. A., Epitaxie du plomb sur le nickel (111) **30** (1972) 697

Lead chalcogenides

S. R. Rao, Thermodynamic analysis of ethyl xanthate adsorbed at galena surface **21** (1970) 413
R. F. Egerton, Surface free energies of lead telluride **24** (1971) 647
M. Green, The surface structure of KCl and PbTe films grown on mica . **26** (1971) 549
R. F. Egerton and A. J. Crocker, The electrical effect of atomic hydrogen on lead telluride **27** (1971) 117

Lithium hydride

G. E. Holcombe, Jr., G. L. Powell and R. E. Clausing, Low-energy electron diffraction and Auger emission spectroscopy studies of lithium hydride (100) surface **30** (1972) 561

Low-energy electron diffraction (LEED)

D. L. Heron and D. Haneman, Two-centre theory of large surface unit cells on semiconductors. **21** (1970) 12
G. Ertl und J. Küppers, Monte-Carlo-Behandlung geordneter Adsorptionsphasen **21** (1970) 61
J. T. Grant and T. W. Haas, A study of Ru(0001) and Rh(111) surfaces

using LEED and Auger electron spectroscopy **21** (1970) 76
M. J. SPARNAAY and J. M. MORABITO, RMS displacements on liquid and solid surfaces. **21** (1970) 178
J. E. HOUSTON and R. L. PARK, Low-energy electron diffraction from imperfect structures **21** (1970) 209
T. E. GALLON, J. G. HIGGINBOTHAM, M. PRUTTON and H. TOKUTAKA, The (100) surfaces of alkali halides. I. The air and vacuum cleaved surfaces . **21** (1970) 224
H. TOKUTAKA, M. PRUTTON, I. G. HIGGINBOTHAM and T. E. GALLON, The (100) surfaces of alkali halides. II. Electron stimulated dissociation . **21** (1970) 233
J. M. CHEN and C. A. PAPAGEORGOPOULOS, LEED study of Na on W (112). **21** (1970) 377
K. D. RENDULIC, A comparison between FIM and LEED studies of surface reconstruction **21** (1970) 401
A. G. FEDORUS and A. G. NAUMOVETS, Cesium on tungsten (001) face; structure and work function **21** (1970) 426
M. HENZLER, Texture of surfaces cleaned by ion bombardment and annealing **22** (1970) 12
D. L. ADAMS, L. H. GERMER and J. W. MAY, The adsorption of hydrogen on tungsten (112); co-adsorption of hydrogen with oxygen **22** (1970) 45
M. F. CHUNG and H. E. FARNSWORTH, Investigations of surface stability of II–VI wurtzite compounds by LEED **22** (1970) 93
J. V. FLORIO and W. D. ROBERTSON, Phase transformations of the Si (111) surface **22** (1970) 433
T. M. FRENCH, A. E. MORGAN and G. A. SOMORJAI, On the need for higher gas pressures to obtain surface structures in low energy electron diffraction studies **22** (1970) 460
C. C. CHANG, Contamination on chemically etched silicon surfaces: LEED-Auger method **23** (1970) 283
D. E. ANDERSSON and S. ANDERSSON, Two-dimensional layers of tellurium on a copper (001) surface **23** (1970) 311
D. F. OLLIS and M. BOUDART, Surface and bulk carburization of tungsten single crystals **23** (1970) 320
P. J. JENNINGS and E. G. MCRAE, Electron diffraction at crystal surfaces. IV. Computation of LEED intensities for "muffin-tin" models with application to tungsten (001) **23** (1970) 363
C. W. TUCKER, JR. and C. B. DUKE, Determination of surface structures from low energy electron diffraction measurements **23** (1970) 411
D. L. ADAMS and L. H. GERMER, Adsorption of hydrogen on W(100) . . **23** (1970) 419
R. HECKINGBOTTOM and P. R. WOOD, LEED evidence for carbon contamination of the Si(311) surface **23** (1970) 437
J. M. DICKEY, H. H. FARRELL and M. STRONGIN, LEED studies of argon crystals on niobium (100) surface **23** (1970) 448
C. M. K. WATTS, Interpretation of LEED experiments at very low energies **23** (1970) 453
Y. MARGONINSKI and L. G. FEINSTEIN, LEED patterns and electrical conductance of gold plated germanium surfaces. **23** (1970) 458
C. W. TUCKER, JR. and C. B. DUKE, The inelastic collision model. III. Matrix inversion for isotropic scatterers **24** (1971) 31
G. ERTL und J. KÜPPERS, Adsorption an Einkristall-Oberflächen von Cu/Ni-Legierungen. I **24** (1971) 104
L. H. JENKINS and M. F. CHUNG, LEED and Auger investigations of Cu (111) surface **24** (1971) 125
J. V. FLORIO and W. D. ROBERTSON, Structure and transformation characteristics of impurity stabilized phases on the Si (111) surface . . **24** (1971) 173
M. HENZLER, The effect of oxygen on surface structure and surface states of cleaved germanium (111) faces **24** (1971) 209
P. S. P. WEI, Electron impact study of insulator surfaces: LiF and NaF . . **24** (1971) 219

T. Edmonds and J. J. McCarroll, Comments on "Determination of nickel–molybdenum surface alloy structures using LEED" by L. G. Feinstein and E. Blanc **24** (1971) 353
M. P. Seah, Identification of surface plasmons excited in that flat region of a single crystal surface monitored by LEED **24** (1971) 357
J. W. T. Ridgway and D. Haneman, Auger spectra and LEED patterns from vacuum cleaved silicon crystals with calibrated deposits of iron . **24** (1971) 451
J. Perdereau and G. E. Rhead, LEED studies of adsorption on vicinal copper surfaces **24** (1971) 555
M. F. Chung and H. E. Farnsworth, Enhanced oxygen chemisorption on CdSe(0001) by a hot filament **24** (1971) 635
P. J. Estrup and E. G. McRae, Surface studies by electron diffraction . . **25** (1971) 1
K. Yonehara and L. D. Schmidt, A LEED study of structures produced by H_2 on (100)W **25** (1971) 238
S. Andersson and B. Kasemo, Low-energy electron diffraction intensities from the clean nickel (001) surface **25** (1971) 273
J. M. Chen, LEED, Auger, and work function studies of clean and Na-covered surfaces of GaAs **25** (1971) 305
M. F. Chung and H. E. Farnsworth, Effect of bulk resistivity, annealing temperature and illumination on oxygen sorption on CdSe surfaces . **25** (1971) 321
R. N. Thomas and H. E. Francombe, Influence of impurities on the surface structures and fault generation in homoepitaxial Si (111) films . **25** (1971) 357
G. Allié et A. Gervais, Correlation entre les propriétés électriques de NiO et ses propriétés structurales observées par diffraction d'électrons lents **25** (1971) 435
M. G. Lagally, T. C. Ngoc and M. B. Webb, Consequences of the reciprocity theorem in low-energy electron diffraction **25** (1971) 444
J. T. Grant, Some studies on the Ir(111) surface using LEED and Auger electron spectroscopy **25** (1971) 451
E. G. McRae, Surface-state resonances in low-energy electron diffraction . **25** (1971) 491
P. J. Jennings, Surface barrier effects in low-energy electron diffraction . **25** (1971) 513
B. W. Holland, R. W. Hannum and A. M. Gibbons, Calculations based on the inelastic collision model for LEED. I. LIF(001) **25** (1971) 561
B. W. Holland, R. W. Hannum, A. M. Gibbons and D. P. Woodruff, Calculations based on the inelastic collision model for LEED. II. Ni (111) and (110) **25** (1971) 576
P. W. Palmberg, Physical adsorption of xenon on Pd(100). **25** (1971) 598
B. J. Hopkins, C. B. Williams and P. C. Wilmer, Chemical and physical adsorption of oxygen on the (110) plane of tungsten **25** (1971) 633
I. Jánossy and M. Menyhárd, LEED study of quartz crystals. . . . **25** (1971) 647
D. L. Adams and L. H. Germer, The adsorption of nitrogen on W (100) . **26** (1971) 109
J. E. Houston and R. L. Park, LEED from statistical step models . . **26** (1971) 269
R. W. Joyner, C. S. McKee and M. W. Roberts, The adsorption of carbon monoxide on Cu (001); LEED and Auger emission studies . . **26** (1971) 303
C. W. Tucker, Jr., Hydrogen structures on metal surfaces **26** (1971) 311
G. Capart, Dynamical calculations of LEED intensities at clean copper (001) surface **26** (1971) 429
J. M. Wilson and T. J. Bastow, Surface thermal expansion for Cr(100) and Mo(100) single crystals **26** (1971) 461
D. Tabor, J. M. Wilson and T. J. Bastow, Surface Debye–Waller factors for Cr(100) and Mo(100) **26** (1971) 471
J. M. Chen and C. A. Papageorgopoulos, Work function and LEED study of Na and O_2 covered surfaces of W (112) **26** (1971) 499
P. J. Jennings, Computations of relativistic LEED intensities and spin-polarisations for tungsten (001) **26** (1971) 509

R. M. LAMBERT, J. W. LINNETT and J. A. SCHWARZ, Adsorption of oxygen on molybdenum (111): effect of trace impurities **26** (1971) 572
J. T. GRANT and T. W. HAAS, A study of InAs (111) and ($\bar{1}\bar{1}\bar{1}$) surfaces using LEED and Auger electron spectroscopy **26** (1971) 669
J. W. T. RIDGWAY and D. HANEMAN, Auger spectra and LEED patterns from nickel deposits on cleaved silicon **26** (1971) 683
D. L. ADAMS and L. H. GERMER, Adsorption on single-crystal plane of tungsten. I. Nitrogen **27** (1971) 21
A. G. JACKSON and M. P. HOOKER, Auger-LEED investigation of Sn on Mo (100) **27** (1971) 197
P. J. JENNINGS, A spin-dependent treatment of surface-state resonances in LEED **27** (1971) 221
R. RIWAN, La diffusion du soufre vers la face (110) du nickel **27** (1971) 267
R. W. JOYNER, C. S. MCKEE and M. W. ROBERTS, The interaction of hydrogen sulphide with Cu (001) **27** (1971) 279
L. DE BERSUDER, V. HOFFSTEIN and J. LAUZIER, LEED rotation diagrams for Al **27** (1971) 338
G. J. RUSSELL and D. HANEMAN, Oxygen adsorption on vacuum cleaved GaAs at liquid nitrogen temperatures by LEED **27** (1971) 362
R. HECKINGBOTTOM, The splitting of LEED with varying surface coverage . **27** (1971) 370
C. B. DUKE, G. E. LARAMORE, B. W. HOLLAND and A. M. GIBBONS, Isotropic-scatterer inelastic-collision-model analysis of low-energy electron diffraction from Al (100) and Al (110) **27** (1971) 523
D. ABERDAM, G. BOUCHET and P. DUCROS, LEED study of surface structures on the (001) face of $BaTiO_3$ **27** (1971) 559
D. ABERDAM and C. GAUBERT, Study of the temperature dependence of LEED intensities from the (001) surface of $BaTiO_3$ between 20°C and 650°C **27** (1971) 571
S. KATO and H. KOBAYASHI, LEED study of iron single crystal surfaces . . **27** (1971) 625
R. M. LAMBERT, W. H. WEINBERG, C. M. COMRIE and J. W. LINNETT, LEED-Auger investigation of a stable carbide overlayer on a platinum (111) surface **27** (1971) 653
R. R. RYE and B. D. BARFORD, Flash desorption of hydrogen on tungsten (211) **27** (1971) 667
B. W. HOLLAND, A simple model for temperature effects in LEED . . . **28** (1971) 258
A. G. JACKSON and M. P. HOOKER, Auger/LEED investigation of the deposition of Al onto the Mo (110) surface **28** (1971) 373
M. A. CHESTERS and J. PRITCHARD, LEED and surface potential study of carbon monoxide and xenon adsorbed on Cu(100) **28** (1971) 460
K. HIRABAYASHI, Intensity of low-energy electron diffraction from Al (100) by simplified s-wave approximation **28** (1971) 621
T. W. HAAS, S. THOMAS and G. J. DOOLEY III, Soft X-ray appearance potential spectroscopy in a display LEED system **28** (1971) 645
J. HENRION and G. E. RHEAD, LEED studies of the first states of deposition and melting of lead on low index faces of copper **29** (1972) 20
J. W. MAY and C. E. CARROLL, Ionic monolayers on metals. II. Neutral mixed layers and surface reconstruction **29** (1972) 85
J. D. LEVINE, A. WILLIS, W. R. BOTTOMS and P. MARK, Correlation of electronic, LEED, and Auger diagnostics on ZnO surfaces . . . **29** (1972) 144
R. S. ZIMMER and W. D. ROBERTSON, A carbon structure on the Re(0001) surface **29** (1972) 230
C. W. TUCKER, JR. and C. B. DUKE, Surface structure determination by low-energy electron diffraction **29** (1972) 237
M. FINK, M. R. MARTIN and G. A. SOMORJAI, Comparison of backscattering intensities for energy electrons from various surface atoms

(H, Li, Be, C, O, Al, Si, S, V, Cr, Ni, Cu, Ag, Pt, Au) **29** (1972) 303
Y. Margoninski, The influence of inelastic electron processes on LEED beam intensities during adsorption studies **29** (1972) 355
J. I. Gersten and E. G. McRae, Low-energy electron diffraction amplitudes **29** (1972) 483
R. J. Reid, LEED studies on the low index faces of copper. I. The room temperature intensity–energy spectra **29** (1972) 603
R. J. Reid, LEED studies on the low index faces of copper. II. The effects of temperature on the intensity–energy spectra **29** (1972) 623
J. M. Burkstrand, F. M. Propst, T. L. Cooper and D. E. Edwards, A note on energy loss measurements in tungsten **29** (1972) 663
H. Taub, Surface barrier effects in the inelastic collision model of low energy electron diffraction **30** (1972) 161
S. Sinharoy, R. M. Stern and P. D. Goldstone, Beam threshold and surface resonance effects in low energy electron diffraction from Ni(100) **30** (1972) 207
F. Jona, J. A. Strozier, Jr. and C. Wong, Re-examination of Al(110) with low-energy electron diffraction and Auger spectroscopy . . . **30** (1972) 225
D. M. Zehner and H. E. Farnsworth, LEED structures due to interaction of CO and O_2 with (0001) and (10$\bar{1}$0) Re at 20 °C to 920 °C . . **30** (1972) 335
B. Lang, R. W. Joyner and G. A. Somorjai, Low energy electron diffraction studies of high index crystal surfaces of platinum **30** (1972) 440
B. Lang, R. W. Joyner and G. A. Somorjai, Low energy electron diffraction studies of chemisorbed gases on stepped surfaces of platinum . **30** (1972) 454
G. E. Becker and H. D. Hagstrum, Orbital energy spectra of electrons in chemisorption bonds: O, S, Se on Ni(110) and Ni(111) **30** (1972) 505
T. A. Clarke, R. Mason and M. Tescari, Fourier analysis of LEED intensities in the determination of surface structures **30** (1972) 553
G. E. Holcombe, Jr., G. L. Powell and R. E. Clausing, Low-energy electron diffraction and Auger emission spectroscopy studies of lithium hydride (100) surface **30** (1972) 561
A. Ignatiev, A. V. Jones and T. N. Rhodin, LEED investigations of xenon single crystal films and their use in studying the Ir(100) surface . **30** (1972) 573
C. B. Duke and G. E. Laramore, Determination of the structure of adsorbed monolayers by the energy-averaging method: Al(100) **30** (1972) 659
E. Al Khoury Nemeh, R. C. Cinti et Nguyen T. T. A., Epitaxie du plomb sur le nickel (111) **30** (1972) 697

Luminescence

I. B. Ermolovich, G. P. Peka and M. K. Sheinkman, Effect of surface states on luminescent properties of CdS single crystals **24** (1971) 229

Magnesium oxide

A. J. Tench, Temperature effects on the hyperfine coupling of a surface centre **25** (1971) 625
K. H. Rieder, Vibrational surface thermodynamic functions of magnesium oxide **26** (1971) 637

Mass spectrometry

T. E. Gallon, I. G. Higginbotham, M. Prutton and H. Tokutaka, The (100) surfaces of alkali halides. I. The air and vacuum cleaved surfaces. **21** (1970) 224

H. Tokutaka, M. Prutton, I. G. Higginbotham and T. E. Gallon, The (100) surfaces of alkali halides. II. Electron stimulated dissociation . . **21** (1970) 233
I. G. Higginbotham, T. E. Gallon, M. Prutton and H. Tokutaka, The (100) surfaces of alkali halides. III. Electron stimulated desorption and overall discussion **21** (1970) 241
D. L. Adams, L. H. Germer and J. W. May, The adsorption of hydrogen on tungsten (112); co-adsorption of hydrogen with oxygen . . . **22** (1970) 45
L. R. Clavenna and L. D. Schmidt, Interaction of N_2 with (100) W . . **22** (1970) 365
F. W. Röllgen and H. D. Beckey, Surface reactions induced by field ionization of organic molecules **23** (1970) 69
S. S. Brenner and J. T. McKinney, Construction and performance of an FIM-atom probe **23** (1970) 88
E. W. Müller, S. V. Krishnaswamy and S. B. McLane, Atom-probe FIM analysis of the interaction of the imaging gas with the surface . . **23** (1970) 112
R. J. Madix, R. Parks, A. A. Susu and J. A. Schwarz, Chemical relaxation molecular beam studies of reactive gas–solid scattering. II. Reaction of ozone with heated germanium surfaces **24** (1971) 288
G. Heinicke und H. Hoffmann, Zur Wechselwirkung von Gasen an tribomechanisch bearbeiteten Nickeloberflächen **24** (1971) 484
A. J. Socha, Analysis of surfaces utilizing sputter ion source instruments. **25** (1971) 147
R. R. Ford and D. Lichtman, Electron induced ion desorption of oxygen adsorbed on rhenium **25** (1971) 537
P. Genequand, Photodesorption **25** (1971) 643
F. W. Röllgen and H. D. Beckey, Field induced chemisorption and promoted field ionization **26** (1971) 100
D. L. Adams and L. H. Germer, The adsorption of nitrogen on W(100) . **26** (1971) 109
P. W. Tamm and L. D. Schmidt, Crystallographic anisotropies in condensation: N_2 on (110) W **26** (1971) 286
R. R. Ford and D. Lichtman, Ion desorption characteristics induced by electron interaction with carbon monoxide adsorbed on rhenium . . **26** (1971) 365
F. W. Röllgen und H. D. Becky, Feld- und Oberflächenreaktionen des Wassers **27** (1971) 321
J. Peavey and D. Lichtman, Photon induced desorption using synchrotron radiation **27** (1971) 649
S. Baidyaroy, W. R. Bottoms and P. Mark, Photodesorption from CdS. **28** (1971) 517
A. Benninghoven, Beobachtung von Oberflächenreaktionen mit der statischen Methode der Sekundärionen-Massenspektroskopie. I. Die Methode **28** (1971) 541
R. P. H. Gasser, T. N. Morton, J. M. Overton and A. K. Szczepura, Kinetic isotope effect in hydrogen adsorption on tungsten . . . **28** (1971) 574
T. E. Madey, Adsorption and displacement processes on W(111) involving CH_4, H_2, and O_2. . . . . **29** (1972) 571
A. K. Mazumdar and H.-W. Wassmuth, Mass-spectrometric study of the chemisorption of oxygen on tungsten under transient and steady-state desorption conditions **30** (1972) 617

Metals

I. Terzić and B. Perović, Spectral analysis of light emitted from metallic targets bombarded by high energy ions **21** (1970) 86
B. Lewis, Migration and capture processes in heterogeneous nucleation and growth. II. Comparison with experiment. **21** (1970) 289
L. Trilling, The interaction of monatomic inert gas molecules with a continuous elastic solid **21** (1970) 337

H. Sato and S. Shinozaki, Interfacial energy as a factor in controlling epitaxial behavior **22** (1970) 229
N. Mancini and E. Rimini, Annealing of polycrystalline Au and Au–Ag thin films **22** (1970) 357
F. Bonneton et M. Drechsler, Relaxation tangentielle de surface (en particulier de la face (112) d'un cristal cubique centré) **22** (1970) 426
W. M. H. Sachtler, Comments on: "On the demetallization effect of chemisorption" by Z. Bastl **22** (1970) 442
L. W. Swanson and L. C. Crouser, The effect of polyatomic adsorbates on the total energy distribution of field emitted electrons **23** (1970) 1
J. W. Gadzuk, A comparison between the Fermi–Thomas and quantum dielectric response of a metal surface to a static point charge . . . **23** (1970) 58
S. S. Brenner and J. T. McKinney, Construction and performance of an FIM-atom probe. **23** (1970) 88
E. W. Müller, S. V. Krishnaswamy and S. B. McLane, Atom-probe FIM analysis of the interaction of the imaging gas with the surface. . . **23** (1970) 112
P. J. Birdseye and D. A. Smith, The electric field and the stress on a field-ion specimen **23** (1970) 198
D. W. Bassett, The use of field ion microscopy in studies of the vapour deposition of metals **23** (1971) 240
A. M. Horgan and D. A. King, Oxygen adsorption, reconstruction, and thin oxide film formation on clean metal surfaces: Ni, Fe, W and Mo **23** (1970) 259
J. F. Hamilton and L. E. Brady, A model for the AgBr(111) surface, based on the symmetry of nucleation sites for evaporated metal **23** (1970) 389
C. W. Tucker, Jr. and C. B. Duke, Determination of surface structures from low energy electron diffraction measurements. **23** (1970) 411
I. M. Ritchie, Logarithmic kinetics and surface controlled metal oxidation reactions **23** (1970) 443
C. W. Tucker, Jr. and C. B. Duke, The inelastic collision model. III. Matrix inversion for isotropic scatterers **24** (1971) 31
J. T. Grant and T. W. Haas, Auger electron spectroscopy studies of carbon overlayers on metal surfaces **24** (1971) 332
R. Bouwman and W. M. H. Sachtler, Photoelectric determination of the equilibration of metal and alloy films. **24** (1971) 350
A. J. Socha, Analysis of surfaces utilizing sputter ion source instruments **25** (1971) 147
R. G. Wilson, Surface ionization hysteresis phenomena. **25** (1971) 385
R. K. Janev, I. V. Terzić and D. M. Davidović, Transition rates of the resonant processes in Li^+ and Na^+ ion interaction with Li, W and Mo surfaces **26** (1971) 142
E. Gerlach, Estimate of surface energies of metals **26** (1971) 310
C. W. Tucker, Jr., Hydrogen structures on metal surfaces **26** (1971) 311
G. Wedler und P. Wissmann, Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen **26** (1971) 389
J. R. Anderson and N. Thompson, Study of adsorption of titanium on tungsten and rhenium by field electron emission. **26** (1971) 397
O. Nishikawa and K. D. Rendulic, Some FIM observations on gold-welding of metals **26** (1971) 677
L. Trilling, The dependence of accommodation coefficient on surface temperature **27** (1971) 1
R. G. Linford and L. A. Mitchell, Interplanar potential functions for calculating surface energies and cohesive stress **27** (1971) 142
C. Maze and G. Burnet, Estimation of non-equilibrium surface tension . **27** (1971) 411
P. J. Feibelman, Inclusion of dynamics in the ion–metal surface interaction. I. **27** (1971) 438

J. Peavey and D. Lichtman, Photon induced desorption using synchrotron radiation 27 (1971) 649
J. C. Inkson, The electron–electron interaction near an interface . . . 28 (1971) 69
M. A. Fortes, The shape of field-evaporated metal tips 28 (1971) 95
M. A. Fortes, General properties of the field-ion image projection . . 28 (1971) 117
D. F. Klemperer and J. C. Snaith, Roughness and surface potential in physisorption. 28 (1971) 209
K. D. Rendulic, Measurements on field adsorption of neon and helium and the field ionization of a helium–neon mixture 28 (1971) 285
P. V. S. Rao and J. T. Waber, Surface field analysis of splitting of orbitals of atoms and ions approaching a metal surface 28 (1971) 299
H. Sang and W. A. Miller, On surface energy calculations using the pairwise bonding model 28 (1971) 349
B. R. Gossick, Electrical characteristics of a metal–semiconductor contact. III 28 (1971) 469
G. K. Hall and C. H. B. Mee, The surface potential of oxygen on iron, cobalt and manganese 28 (1971) 598
M. F. Chung and L. H. Jenkins, LLM versus LMM Auger transitions for the light elements 28 (1971) 637
A. T. Fromhold, Jr., Stress in dielectric contact layers on metals . . . 29 (1972) 396
Z. Bastl, Comments on: "Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen" by G. Wedler and P. Wissmann. 30 (1972) 245
J. P. Coad, Comments on: "LLM versus LMM Auger transitions for the light elements" by M. F. Chung and L. H. Jenkins 30 (1972) 687

Mica

H. Poppa and A. G. Elliot, The surface composition of mica substrates . 24 (1971) 149
M. Green, The surface structure of KCl and PbTe films grown on mica . 26 (1971) 549
W. J. Dunning and M. A. Savva, Secondary cleavage in muscovite mica. 27 (1971) 672

Molecular beam studies

R. J. Madix and J. A. Schwarz, Chemical relaxation molecular beam studies of reactive gas–solid scattering. I. Reaction of silicon and germanium with molecular chlorine 24 (1971) 264
R. J. Madix, R. Parks, A. A. Susu and J. A. Schwarz, Chemical relaxation molecular beam studies of reactive gas–solid scattering. II. Reaction of ozone with heated germanium surfaces 24 (1971) 288
D. F. Ollis, H. G. Lintz, A. Pentenero and A. Cassuto, Study of gas–solid chemical interactions by noble gas molecular beams. IV. Adsorption states and oxidation of molybdenum and rhenium 26 (1971) 21
D. V. Tendulkar and R. E. Stickney, Diffraction of helium atoms from tungsten (112) crystal surface 27 (1971) 516
R. J. H. Voorhoeve, Simplifications and complications of heterogeneous nucleation theory 28 (1971) 145
Y. de Ribaupierre et J.-P. Borel, Etats d'adsorption à faible densité du potassium sur le cuivre 29 (1972) 265
D. A. King and M. G. Wells, Molecular beam investigation of adsorption kinetics on bulk metal targets: nitrogen on tungsten 29 (1972) 454
M. D. Scheer, R. Klein and J. D. McKinley, Halogens adsorbed on molybdenum: their surface lifetimes and desorption kinetics 30 (1972) 251
H. Hoinkes, H. Nahr and H. Wilsch, Reflection, diffraction and selective adsorption of atomic hydrogen on the (001) surface 30 (1972) 363

Molybdenum

Z. Bastl, On the demetallization effect of chemisorption **22** (1970) 439
L. D. Matthews, Radiotracer and photoemission studies of CO chemisorbed on Mo(100) **24** (1971) 248
D. F. Ollis, H. G. Lintz, A. Pentenero and A. Cassuto, Study of gas–solid chemical interactions by noble gas molecular beams. IV. Adsorption states and oxidation of molybdenum and rhenium. **26** (1971) 21
J. M. Wilson and T. J. Bastow, Surface thermal expansion for Cr(100) and Mo(100) single crystals **26** (1971) 461
D. Tabor, J. M. Wilson and T. J. Bastow, Surface Debye–Waller factors for Cr(100) and Mo(100) **26** (1971) 471
R. M. Lambert, J. W. Linnett and J. A. Schwarz, Adsorption of oxygen on molybdenum (111): effect of trace impurities. **26** (1971) 572
F. M. Gardner, F. E. Girouard, W. L. Boeck and E. A. Coomes, Thermionic emission from single-crystal filaments **26** (1971) 605
A. G. Jackson and M. P. Hooker, Auger-LEED investigation of Sn on Mo (100) **27** (1971) 197
A. G. Jackson and M. P. Hooker, Auger-LEED investigation of the deposition of Al onto the Mo(110) surface **28** (1971) 373
S. Thomas and T. W. Haas, Auger spectroscopy study of the adsorption of Rb on Mo(110) **28** (1971) 632
M. D. Scheer, R. Klein and J. D. McKinley, Halogens adsorbed on molybdenum: their surface lifetimes and desorption kinetics **30** (1972) 251

Nickel

C. Reale, Structural characteristics of vacuum deposited discontinuous nickel films **22** (1970) 19
B. A. Politzer and P. H. Cutler, A model calculation of field emission from 3d bands in nickel. **22** (1970) 277
M. Perdereau, Emploi quantitatif de la spectroscopie Auger; étalonnage de la méthode **24** (1971) 239
G. Wedler, C. Wölfing und P. Wissmann, Die photoelektrischen Eigenschaften aufgedampfter Nickelfilms; Einfluss von Schichtdicke und Temperung **24** (1971) 302
G. D. W. Smith and J. S. Anderson, Field emission and field ion microscope studies of the epitaxial growth of nickel on tungsten **24** (1971) 459
G. Heinicke und H. Hoffmann, Zur Wechselwirkung von Gasen an tribomechanisch bearbeiteten Nickeloberflächen **24** (1971) 484
B. G. Baker, B. B. Johnson and G. L. C. Maire, Photoelectric work function measurements on nickel crystals and films **24** (1971) 572
D. P. Williams and R. P. H. Gasser, Low energy electron desorption of mixed adsorbates **25** (1971) 265
S. Andersson and B. Kasemo, Low-energy electron diffraction intensities from the clean nickel (001) surface **25** (1971) 273
B. W. Holland, R. W. Hannum, A. M. Gibbons and D. P. Woodruff, Calculations based on the inelastic collision model for LEED. II. Ni (111) and (110) **25** (1971) 576
J. P. Coad and J. C. Rivière, Auger spectroscopy of carbon on nickel. . **25** (1971) 609
P. Genequand, Photodesorption **25** (1971) 643
G. Wedler und F. J. Bröcker, Die Adsorptionswärme des Wasserstoffs an Nickelfilmen bei 77 °K und 273 °K und ihr Bezug zu anderen Adsorptionseffekten **26** (1971) 454
A. E. Dabiri, T. J. Lee and R. E. Stickney, Spatial and speed distributions of H_2 and D_2 desorbed from a polycrystalline nickel surface . . . **26** (1971) 522

R. Riwan, La diffusion du soufre vers la face(110) du nickel **27** (1971) 267
G. Dalmai-Imelik, J. C. Bertolini et J. Rousseau, Commentaires sur "Auger spectroscopy of carbon on Ni" de J. P. Coad et J. C. Rivière **27** (1971) 379
D. T. Quinto, V. S. Sundaram and W. D. Robertson, Auger spectra of copper–nickel alloys **28** (1971) 504
J. W. May and C. E. Carroll, Ionic monolayers on metals. II. Neutral mixed layers and surface reconstruction **29** (1972) 85
D. J. M. Fassaert, H. Verbeek and A. van der Avoird, Molecular orbital models for hydrogen adsorption on different sites of a nickel crystal. **29** (1972) 501
T. L. Bradley, A. E. Dabiri and R. E. Stickney, Measurements of the spatial distribution of H_2 desorbed from Ni surfaces: effects of surface composition and crystal orientation **29** (1972) 590
S. Sinharoy, R. M. Stern and P. D. Goldstone, Beam threshold and surface resonance effects in low energy electron diffraction from Ni(100). **30** (1972) 207
G. E. Becker and H. D. Hagstrum, Orbital energy spectra of electrons in chemisorption bonds: O, S, Se, on Ni(110) and Ni(111) **30** (1972) 505
E. Al Khoury Nemeh, R. C. Cinti et Nguyen T. T. A., Epitaxie du plomb sur le nickel(111) **30** (1972) 697
H. J. Bauer, D. Blechschmidt and M. von Hellermann, On the influence of gaseous hydrogen on the saturation magnetization of thin evaporated nickel films **30** (1972) 701

Nickel oxide

G. Allié et A. Gervais, Correlation entre les propriétés électriques de NiO et ses propriétés structurales observées par diffraction d'électrons lents. **25** (1971) 435
T. Wolfram, R. E. DeWames, W. F. Hall and P. W. Palmberg, Surface magnetization near the critical temperature and the temperature dependence of magnetic-electron scattering from NiO **28** (1971) 45

Niobium

J. M. Dickey, H. H. Farrell and M. Strongin, LEED studies of argon crystals on niobium (100) surface **23** (1970) 448
W. C. Niehaus and E. A. Coomes, Surface-barrier analysis for niobium and tantalum and tantalum-on-niobium from periodic deviations in the thermionic Schottky effect **27** (1971) 256
E. K. Stefanakos, A. A. Fadl and R. F. Tinder, Desorption of Na and K from niobium **28** (1971) 221

Noble gases

J. M. Dickey, H. H. Farrell and M. Strongin, LEED studies of argon crystals on niobium(100) surfaces **23** (1970) 448
K. D. Rendulic, Measurements on field adsorption of neon and helium and the field ionization of a helium–neon mixture **28** (1971) 285
A. Ignatiev, A. V. Jones and T. N. Rhodin, LEED investigations of xenon single crystal films and their use in studying the Ir(100) surface . . **30** (1972) 573

Nucleation

B. Lewis, Migration and capture processes in heterogeneous nucleation and growth. I. Theory **21** (1970) 273
B. Lewis, Migration and capture processes in heterogeneous nucleation and growth. II. Comparison with experiment. **21** (1970) 289

D. Kashchiev, Nucleation at time-dependent supersaturation **22** (1970) 319
D. W. Bassett, The use of field ion microscopy in studies of the vapour deposition of metals **23** (1970) 240
J. F. Hamilton and L. E. Brady, A model for the AgBr(111) surface, based on the symmetry of nucleation sites for evaporated metal **23** (1970) 389
L. Sogor and A. G. Walton, Mechanism of heterogeneous nucleation. I. Vapor–liquid and liquid–solid transformation of benzene catalyzed by KCl **25** (1971) 337
J. J. Burton, Gas phase nucleation steady state rates for two cluster models **26** (1971) 1
P. A. Tick and A. F. Witt, Computational approach to equilibrium relaxation in central force systems **26** (1971) 165
J. V. Dave and F. F. Abraham, Comparison of the potential energies for various packings of microcrystallites **26** (1971) 557
R. J. H. Voorhoeve, Simplifications and complications of heterogeneous nucleation theory **28** (1971) 145
G. Pilkington and J. P. Hirth, Epitaxial deposition of silver on molybdenite **29** (1972) 363
R. C. Cinti and B. K. Chakraverty, The growth of silver films on silica in ultra-high vacuum. I. Experimental – growth model **30** (1972) 109
R. C. Cinti and B. K. Chakraverty, The growth of silver films on silica in ultra-high vacuum. II. Discussion – nucleation model **30** (1972) 125

Oxidation

I. M. Ritchie and R. K. Tandon, Some doping studies on the oxidation of zinc in the temperature range 200–390 °C. **22** (1970) 199
A. M. Horgan and D. A. King, Oxygen adsorption, reconstruction, and thin oxide film formation on clean metal surfaces: Ni, Fe, W and Mo. **23** (1970) 259
I. M. Ritchie, Logarithmic kinetics and surface controlled metal oxidation reactions **23** (1970) 443
R. J. Madix, R. Parks, A. A. Susu and J. A. Schwarz, Chemical relaxation molecular beam studies of reactive gas–solid scattering. II. Reaction of ozone with heated germanium surfaces **24** (1971) 288
Th. Heumann und In-Hyung Moon, Sauerstoffadsorption auf Kupfer und Bestimmung des Rauhigkeitsfaktors **24** (1971) 370
E. Sugata and S. Ishii, A method for the continuous observation of the oxygen adsorption phenomena in the field ion microscope. . . . **24** (1971) 663
R. R. Ford and D. Lichtman, Electron induced ion desorption of oxygen adsorbed on rhenium **25** (1971) 537
D. F. Ollis, H. G. Lintz, A. Pentenero and A. Cassuto, Study of gas–solid chemical interactions by noble gas molecular beams. IV. Adsorption states and oxidation of molybdenum and rhenium. **26** (1971) 21
D. R. Arnott and J. A. Ramsey, Electron emission from anodically oxidised aluminium due to tensile deformation. **28** (1971) 1
T. Baird, J. R. Fryer and E. V. Riddell, Oxidation of thin tin films. . **28** (1971) 525
P. B. Sewell, D. F. Mitchell and M. Cohen, A kinetic study of the initial oxidation of a Ta(110) surface using oxygen K_α X-ray emission . . **29** (1972) 173
H. E. Grenga and R. Kumar, Hydrogen-ion microscopy of titanium. . **29** (1972) 447
F. Lukeš, Oxidation of Si and GaAs in air at room temperature . . . **30** (1972) 91
Wm. H. Krueger and S. R. Pollack, The initial oxidation of aluminum thin films at room temperature. **30** (1972) 263
W. H. Weinberg, R. M. Lambert, C. M. Comrie and J. W. Linnett, Oxygen chemisorption on platinum. II. Model calculations. **30** (1972) 299
G. L. Hunt and I. M. Ritchie, The effect of traces of iodine on the oxidation rate of aluminium **30** (1972) 475

Oxides

P. R. Anderson, A model for localized physical adsorption on ionic solids . **27** (1971) 60
A. Netten and A. H. Boonstra, Three-step adsorption of hydrogen sulphide at about −120 °C on vapour-deposited lead monoxide layers . . **27** (1971) 77

Palladium

G. Ertl und J. Küppers, Monte-Carlo-Behandlung geordneter Adsorptionsphasen **21** (1970) 61
P. W. Palmberg, Physical adsorption of xenon on Pd(100). **25** (1971) 598

Paramagnetic resonance

K. M. Sancier, ESR investigation of photodamage to zinc oxide powders . **21** (1970) 1
B. Boddenberg, R. Haul und G. Oppermann, Adsorptionskinetische und NMR Spinecho-Untersuchungen zur Selbstdiffusion adsorbierter Moleküle **22** (1970) 29
C. Lamy et P. Malaterre, Caractérisation des sites réactionnels d'une électrode en functionnement par résonance paramagnétique électronique: application à des électrodes de charbons platinés **22** (1970) 325
D. J. Miller and D. Haneman, Carbon epr signal from vacuum heated surfaces **24** (1971) 639
D. Freude, D. Müller and H. Schmiedel, On the line shape problem of proton resonance spectra of hydroxyl groups on solid surfaces . . . **25** (1971) 289
A. J. Tench, Temperature effects on the hyperfine coupling of a surface centre **25** (1971) 625
J. P. Bonnelle and M. Guelton, ESR evidence of surface Fermi level anchoring by surface additives on ZnO **27** (1971) 375
R. C. Seymour and J. C. Wood, Paramagnetic gas adsorption **27** (1971) 605
H. J. Bauer, D. Blechschmidt and M. von Hellermann, On the influence of gaseous hydrogen on the saturation magnetization of thin evaporated nickel films **30** (1972) 701

Photoelectric emission, *see also* Electron emission

R. B. Elliott and F. R. O'Neill, Photo-electron emission from abraded aluminium **21** (1970) 203
R. Bouwman and W. M. H. Sachtler, Photoelectric determination of the work function of Ru-films as a function of sintering temperature (78 °K–925 °K) **24** (1971) 140
L. D. Matthews, Radiotracer and photoemission studies of CO chemisorbed on Mo(100) **24** (1971) 248
G. Wedler, C. Wölfing und P. Wissmann, Die photoelektrischen Eigenschaften aufgedampfter Nickelfilme; Einfluss von Schichtdicke und Temperung **24** (1971) 302
B. G. Baker, B. B. Johnson and G. L. C. Maire, Photoelectric work function measurements on nickel crystals and films. **24** (1971) 572
J. M. Chen, A proposed model for the Cs–O covered semiconductor photocathodes **25** (1971) 457
J. H. Dinan, L. K. Galbraith and T. E. Fischer, Electronic properties of clean cleaved {110} GaAs surfaces **26** (1971) 587
R. L. Park and J. E. Houston, Appearance potential spectroscopy on an austere budget **26** (1971) 664

T. T. YANG and J. J. YANG, Theoretical investigation of thermionic and photoelectric emission from semiconductors in the region of Schottky deviation **27** (1971) 349
TH. G. J. VAN OIRSCHOT and W. M. H. SACHTLER, Photoelectric emission from vapour quenched and annealed sodium films **27** (1971) 611
G. K. HALL and C. H. B. MEE, The surface potential of oxygen on iron, cobalt and manganese **28** (1971) 598
TH. G. J. VAN OIRSCHOT, M. VAN DEN BRINK and W. M. H. SACHTLER, Photoelectric emission and phase transitions of evaporated metastable sodium, potassium and sodium–potassium alloy films . . . **29** (1972) 189

Photon excitation

K. M. SANCIER, ESR investigation of photodamage to zinc oxide powders . **21** (1970) 1
J. PEAVEY and D. LICHTMAN, Photon induced desorption using synchrotron radiation **27** (1971) 649
S. BAIDYAROY, W. R. BOTTOMS and P. MARK, Photodesorption from CdS . **28** (1971) 517
J. D. LEVINE, A. WILLIS, W. R. BOTTOMS and P. MARK, Correlation of electronic, LEED, and Auger diagnostics on ZnO surfaces. . . . **29** (1972) 144

Photovoltage

M. F. CHUNG and H. E. FARNSWORTH, Effect of bulk resistivity, annealing temperature and illumination on oxygen sorption on CdSe surfaces . **25** (1971) 321

Platinum

R. P. MERRILL and D. L. SMITH, The scattering of deuterium molecular beams from graphite overgrowths on platinum crystals **21** (1970) 186
C. LAMY et P. MALATERRE, Caractérisation des sites réactionnels d'une électrode en functionnement par résonance paramagnétique électronique: application à des électrodes de charbons platinés **22** (1970) 325
T. M. FRENCH, A. E. MORGAN and G. A. SOMORJAI, On the need for higher gas pressures to obtain surface structures in low energy electron diffraction studies **22** (1970) 460
E. SUGATA, S. ISHII and K. MASUI, Initial growth of platinum crystals on the tungsten surface as observed by the field-ion microscope **24** (1971) 612
R. A. FREDLEIN, A. DAMJANOVIC and J. O'M.BOCKRIS, Differential surface tension measurements at thin solid metal electrodes **25** (1971) 261
W. SCHMIDT, TH. REISNER and E. KRAUTZ, Field ion microscopic observation of interaction phenomena of neon atoms with platinum and platinum–gold alloy surfaces **26** (1971) 297
J. J. EHRHARDT, L. VINCENT, A. CASSUTO et J. P. MALENGE, Détermination de la distribution d'énergie de liaison de gaz adsorbés sur des films métalliques; application au système Pt–O_2. . . . . **26** (1971) 490
R. M. LAMBERT, W. H. WEINBERG, C. M. COMRIE and J. W. LINNETT, LEED-Auger investigation of a stable carbide oberlayer on a platinum (111) surface **27** (1971) 653
W. H. WEINBERG, R. M. LAMBERT, C. M. COMRIE and J. W. LINNETT, Oxygen chemisorption on platinum. II. Model calculations **30** (1972) 299
B. LANG, R. W. JOYNER and G. A. SOMORJAI, Low energy electron diffraction studies of high index crystal surfaces of platinum **30** (1972) 440
B. LANG, R. W. JOYNER and G. A. SOMORJAI, Low energy electron diffraction studies of chemisorbed gases on stepped surfaces of platinum . **30** (1972) 454

Polystyrene

W. Y. Lau and C. M. Burns, A pendent drop–sessile drop approach for the determination of surface tension **30** (1972) 478

Quartz

I. Jánossy and M. Menyhárd, LEED study of quartz crystals **25** (1971) 647

Raman spectroscopy

O. Litzman and J. Celý, The Raman surface scattering in crystals . . . **21** (1970) 390
R. N. Zitter, Raman detection of tellurium layers on surfaces of CdTe . . **28** (1971) 325

Reflection spectroscopy

D. M. Kolb and J. D. E. McIntyre, Spectrophotometric determination of the optical properties of an adsorbed oxygen layer on gold . . . **28** (1971) 321

Reflectivity

F. Flores, F. Garcia-Moliner and G. Navascues, Transport and free carrier electromagnetic phenomena in semiconductor boundary layers **24** (1971) 61
J. D. E. McIntyre and D. E. Aspnes, Differential reflection spectroscopy of very thin surface films **24** (1971) 417

Rhenium

J. T. Grant and T. W. Haas, A study of Ru(0001) and Rh(111) surfaces using LEED and Auger electron spectroscopy **21** (1970) 76
P. Le Goff et R. Ducros, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. II. Application aux réactions de l'éthylène sur rhénium et sur tungstène **21** (1970) 153
R. R. Ford and D. Lichtman, Electron induced ion desorption of oxygen adsorbed on rhenium **25** (1971) 537
D. F. Ollis, H. G. Lintz, A. Pentenero and A. Cassuto, Study of gas–solid chemical interactions by noble gas molecular beams. IV. Adsorption states and oxidation of molybdenum and rhenium **26** (1971) 21
R. R. Ford and D. Lichtman, Ion desorption characteristics induced by electron interaction with carbon monoxide adsorbed on rhenium . . **26** (1971) 365
R. S. Zimmer and W. D. Robertson, A carbon structure on the Re (0001) surface **29** (1972) 230
C. W. Tucker, Jr. and C. B. Duke, Surfaces structure determination by low-energy electron diffraction **29** (1972) 237
D. M. Zehner and H. E. Farnsworth, LEED structures due to interaction of CO and O_2 with (0001) and (10$\bar{1}$0) Re at 20 °C to 920 °C . . **30** (1972) 335
H. G. Lintz et A. Pentenero, Etude des interactions chimiques gaz–solide par la technique du faisceau moléculaire: nouvelle interprétation de la réflexion d'un faisceau d'hélium sur une surface de rhénium en présence d'oxygène **30** (1972) 499

Ruthenium

J. T. Grant and T. W. Haas, A study of Ru (0001) and Rh (111) surfaces using LEED and Auger electron spectroscopy **21** (1970) 76

R. Bouwman and W. M. H. Sachtler, Photoelectric determination of the work function of Ru-films as a function of sintering temperature (78°K–925°K) **24** (1971) 140
R. Klein, Preparation of contiguous chemisorbed adlayers by sequential deposition and surface migration **29** (1972) 309

Semiconductor/electrolyte interface, *see* Solid/electrolyte interface

Silica

J. L. Illinger and D. Rivin, Desorption of organic adsorbates from carbon. II. Determining kinetic parameters non-isothermally . . . **21** (1970) 169
B. Boddenberg, R. Haul und G. Oppermann, Adsorptionskinetische und NMR Spinecho-Untersuchungen zur Selbstdiffusion adsorbierter Moleküle **22** (1970) 29
B. Boddenberg, Modell für die Oberflächendiffusion im Bereich der Mono- und Mehrschichtadsorption **22** (1970) 39
D. Freude, D. Müller and H. Schmiedel, On the line shape problem of proton resonance spectra of hydroxyl groups on solid surfaces . . **25** (1971) 289

Silicates

W. Ward and J. M. Phillips, Calculated lamellar binding. I. Van der Waals bonding in talc and pyrophyllite **25** (1971) 379

Silicon

D. L. Heron and D. Haneman, Two-centre theory of large surface unit cells on semiconductors **21** (1970) 12
L. Ernst, On the field evaporation of silicon **21** (1970) 193
J. P. Coad, H. E. Bishop and J. C. Rivière, Electron-beam assisted adsorption on the Si(111) surface **21** (1970) 253
J. Kassabov, N. Velchev and S. Kaschieva, Influence of γ radiation on the surface states and hole mobility at the Si–SiO_2 interface . . . **21** (1970) 366
W. Mönch, On metal–semiconductor surface barriers **21** (1970) 443
O. Meyer, J. Gyulai and J. W. Mayer, Analysis of amorphous layers on silicon by backscattering and channelling effect measurements . . . **22** (1970) 263
I. Bartoš and J. Nadrchal, Complex band structure of Si and Ge with (100)-surface **22** (1970) 290
G. F. Amelio, Band structure of silicon by characteristic Auger electron spectrum analysis **22** (1970) 301
J. V. Florio and W. D. Robertson, Phase transformations of the Si(111) surface **22** (1970) 433
C. C. Chang, Contamination on chemically etched silicon surfaces: LEED-Auger method **23** (1970) 283
J. T. Grant and T. W. Haas, Auger electron spectroscopy of Si **23** (1970) 347
Y. C. Cheng, A model for interface states in silicon/silicon dioxide structure **23** (1970) 432
R. Heckingbottom and P. R. Wood, LEED evidence for carbon contamination of the Si(311) surface **23** (1970) 437
J. V. Florio and W. D. Robertson, Structure and transformation characteristics of impurity stabilized phases on the Si(111) surface **24** (1971) 173
R. J. Madix and J. A. Schwarz, Chemical relaxation molecular beam studies of reactive gas–solid scattering. I. Reaction of silicon and germanium with molecular chlorine **24** (1971) 264

J. W. T. Ridgway and D. Haneman, Auger spectra and LEED patterns from vacuum cleaved silicon crystals with calibrated deposits of iron . **24** (1971) 451
W. E. Tefft and K. R. Armstrong, Shallow donor surface impurity levels in Si and Ge **24** (1971) 535
H. Harreis and G. Heiland, Capacitance of metal contacts on clean semiconductor surfaces (ZnO and Si, surface states). **24** (1971) 643
H. Ezawa, T. Kuroda and K. Nakamura, Electrons and "surfons" in a semiconductor inversion layer **24** (1971) 654
H. Ezawa, S. Kawaji, T. Kuroda and K. Nakamura, Electron mobility in a semiconductor inversion layer; possible contribution from bulk phonons **24** (1971) 659
C. C. Chang, Auger electron spectrometry **25** (1971) 53
R. N. Thomas and H. E. Francombe, Influence of impurities on the surface structures and fault generation in homoepitaxial Si(111) films . **25** (1971) 357
R. L. Meek, n^+ Silicon–electrolyte interface capacitance. **25** (1971) 526
J. Sochánski, J. Łagowski and A. Morawski, Surface piezoresistance in germanium and silicon **25** (1971) 552
M. Henzler, The origin of surface states **25** (1971) 650
R. A. Collins, Silicon adsorption on tungsten field emitters **26** (1971) 624
M. F. Chung and L. H. Jenkins, Characteristic energies in secondary electron spectra from Si(111) surfaces **26** (1971) 649
J. W. T. Ridgway and D. Haneman, Auger spectra and LEED patterns from nickel deposits on cleaved silicon **26** (1971) 683
T. Smith, Sputter cleaning and etching of crystal surfaces (Ti, W, Si) monitored by Auger spectroscopy, ellipsometry and work function change . **27** (1971) 45
F. Meyer, E. E. de Kluizenaar and G. A. Bootsma, Ellipsometry and the clean surfaces of silicon and germanium. **27** (1971) 88
F. Meyer, Ellipsometric study of adsorption complexes on silicon . . . **27** (1971) 107
H. Ezawa, S. Kawaji and K. Nakamura, Surfons and the electron mobility in a semiconductor inversion layer **27** (1971) 218
F. A. Otter, Jr., H. C. Abbink and O. L. de Lange, Possibility of a surface-stabilized compound of Au and Si on Si surfaces **27** (1971) 273
B. A. Joyce and J. H. Neave, An investigation of silicon–oxygen interactions using Auger electron spectroscopy **27** (1971) 499
P. S. P. Wei and A. W. Smith, Energy dependence of plasmon excitations in silicon by back-scattered low energy electrons **27** (1971) 675
R. Castagné and A. Vapaille, Description of the SiO_2Si interface properties by means of very low frequency MOS capacitance measurements **28** (1971) 157
M. Salmerón and A. M. Baró, Experimental observation of chemical shifts in Auger spectrum from surface layers of SiO_2 during electron bombardment **29** (1972) 300
K. Vedam and S. S. So, Characterization of real surfaces by ellipsometry . **29** (1972) 379
J. H. Neave, C. T. Foxon and B. A. Joyce, The dependence of Auger electron yield on primary beam energy at normal and glancing incidence **29** (1972) 411
F. Yndurain and M. Elices, Surface states calculation for the (100), (110) and (111) faces of Si **29** (1972) 540
F. Lukeš, Oxidation of Si and GaAs in air at room temperature **30** (1972) 91
R. C. Henderson and R. F. Helm, Silicon homoepitaxial thin films via silane pyrolysis: a HEED and Auger electron spectroscopy study . . **30** (1972) 310
T. A. Clarke, R. Mason and M. Tescari, Fourier analysis of LEED intensities in the determination of surface structures **30** (1972) 553
M. M. Ibrahim and N. M. Bashara, Ellipsometric study of 400 eV ion damage in silicon **30** (1972) 632

M. M. Ibrahim and N. M. Bashara, Ellipsometric study of cleaning silicon by ion bombardment and heating in vacuum **30** (1972) 680
G. Rovida, E. Zanazzi and E. Ferroni, On the interaction of oxygen with Si(111) surfaces **30** (1972) 707
B. A. Joyce and J. H. Neave, Reply to Comments on the interaction of oxygen with Si(111) surfaces **30** (1972) 710

Silicon carbide

J. T. Grant and T. W. Haas, Auger electron spectroscopy of Si . . . **23** (1970) 347
G. A. Bootsma and H. J. Gassen, Room temperature gas adsorption on silicon carbide **29** (1972) 297

Silicon oxide

J. Kassabov, N. Velchev and S. Kaschieva, Influence of γ radiation on the surface states and hole mobility at the Si–SiO_2 interface **21** (1970) 366
O. Meyer, J. Gyulai and J. W. Mayer, Analysis of amorphous layers on silicon by backscattering and channelling effect measurements . . . **22** (1970) 263
Y. C. Cheng, A model for interface states in silicon/silicon dioxide structure **23** (1970) 432
H. Ezawa, T. Kuroda and K. Nakamura, Electrons and "surfons" in a semiconductor inversion layer **24** (1971) 654
H. Ezawa, S. Kawaji, T. Kuroda and K. Nakamura, Electron mobility in a semiconductor inversion layer; possible contribution from bulk phonons **24** (1971) 659
H. Ezawa, S. Kawaji and K. Nakamura, Surfons and the electron mobility in a semiconductor inversion layer **27** (1971) 218
R. Castagné and A. Vapaille, Description of the SiO–Si interface properties by means of very low frequency MOS capacitance measurements **28** (1971) 157
M. Salmerón and A. M. Baró, Experimental observation of chemical shifts in Auger spectrum from surface layers of SiO_2 during electron bombardment **29** (1972) 300

Silver

H. J. Wasserman and J. S. Vermaak, On the determination of a lattice contraction in very small silver particles **22** (1970) 164
M. P. Seah, Identification of surface plasmons excited in that flat region of a single crystal surface monitored by LEED **24** (1971) 357
M. G. Lagally, T. C. Ngoc and M. B. Webb, Consequences of the reciprocity theorem in low-energy electron diffraction **25** (1971) 444
G. Pilkington and J. P. Hirth, Epitaxial deposition of silver on molybdenite **29** (1972) 363
A. E. B. Presland, G. L. Price and D. L. Trimm, Hillock formation by surface diffusion on thin silver films **29** (1972) 424
A. E. B. Presland, G. L. Price and D. L. Trimm, The role of microstructure and surface energy in hole growth and island formation in thin silver films **29** (1972) 435
R. C. Cinti and B. K. Chakraverty, The growth of silver films on silica in ultra-high vacuum. I. Experimental – growth model **30** (1972) 109
R. C. Cinti and B. K. Chakraverty, The growth of silver films on silica in ultra-high vacuum. II. Discussion – nucleation model . . . **30** (1972) 125

Silver bromide

J. F. Hamilton and L. E. Brady, A model for the AgBr (111) surface, based on the symmetry of nucleation sites for evaporated metal . . . **23** (1970) 389

Solid/electrolyte interface

C. Lamy et P. Malaterre, Caractérisation des sites réactionnels d'une électrode en functionnement par résonance paramagnétique électronique: application à des électrodes de charbons platinés **22** (1970) 325
R. A. Fredlein, A. Damjanovic and J. O'M. Bockris, Differential surface tension measurements at thin solid metal electrodes **25** (1971) 216
W. J. O'Brien, Anomalous behavior of liquids in isolated contact with solids **25** (1971) 298
R. L. Meek, n^+ Silicon–electrolyte interface capacitance **25** (1971) 526
W. Paik and J. O'M. Bockris, The effect of electromodulation upon ellipsometric measurements of adsorption in the double layer . . . **27** (1971) 191
A. J. Appleby, Brønsted relationships in electrocatalysis **27** (1971) 225
F. Cardon and W. P. Gomes, Experiments on the zinc oxide/electrolyte interface during anodic oxidation reactions under pulsed illumination **27** (1971) 286
S. R. Morrison, Measurement of surface state energy levels of one-equivalent adsorbates on ZnO **27** (1971) 586
V. A. Tyagai and G. Ya. Kolbasov, The contribution of surface states to the charge transport process across CdS, CdSe–electrolyte interface . **28** (1971) 423
V. Brusic, M. A. Genshaw and J. O'M. Bockris, On the possible influence of surface roughening on ellipsometric data in electrochemical studies **29** (1972) 653
J. O'M. Bockris and R. K. Sen, Variation of the coefficient of friction with potential for a solid–solution contact: a revised calculation . . **30** (1972) 237
P. Roy and D. W. Fuerstenau, The effect of doping on the point of zero of charge of alumina **30** (1972) 487

Space charge, *see also* Surface potential, Surface states

J. J. Łagowski, A. Morawski and J. J. Sochański, Surface piezoresistance in germanium **23** (1970) 463
J. Sochański, J. Łagowski and A. Morawski, Surface piezoresistance in germanium and silicon **25** (1971) 552

Sputtering

A. J. Socha, Analysis of surfaces utilizing sputter ion source instruments. **25** (1971) 147

Sulphur

M. Perdereau, Emploi quantitatif de la spectroscopie Auger; étalonnage de la méthode **24** (1971) 239

Surface conductivity, *see also* Field effect

Y. Margoninsky and L. G. Feinstein, LEED patterns and electrical conductance of gold plated germanium surfaces. **23** (1970) 458
E. Guesne, C. Sébenne and M. Balkanski, Electronic surface properties of CdSe single crystals under vacuum or oxygen **24** (1971) 18
F. Flores, F. Garcia-Moliner and G. Navascues, Transport and free carrier electromagnetic phenomena in semiconductor boundary layers. **24** (1971) 61
M. Henzler, The effect of oxygen on surface structure and surface states of cleaved germanium (111) faces **24** (1971) 209

Surface defects

A. Corciovei, M. Croitoru and D. Grecu, Lattice distortion of an fcc crystal near a free surface **21** (1970) 109
P. Adam and H. Wever, Faceting and surface transport phenomena on tungsten in the presence of an electric field or a temperature gradient. . **21** (1970) 307
T. F. Page and B. Ralph, The direct observation of single slip steps on iridium **23** (1970) 211
R. J. Bayuzick and R. S. Goodrich, Observations of grain boundaries with the field ion microscope **23** (1970) 225
K. Vedam and S. S. So, Characterization of real surface by ellipsometry . **29** (1972) 379
V. Brusic, M. A. Genshaw and J. O'M. Bockris, On the possible influence of surface roughening on ellipsometric data in electrochemical studies **29** (1972) 653
S. H. A. Begemann and A. L. Boers, Small angle multiple reflection of low energy (6 keV) noble gas ions from single crystal surfaces as a means to study surface texture and contamination **30** (1972) 134
M. M. Ibrahim and N. M. Bashara, Ellipsometric study of 400 eV ion damage in silicon **30** (1972) 632

Surface diffusion

H. P. Bonzel, A surface diffusion mechanism at high temperature. . . **21** (1970) 45
G. Ertl und J. Küppers, Monte-Carlo-Behandlung geordneter Adsorptionsphasen **21** (1970) 61
B. Lewis, Migration and capture processes in heterogeneous nucleation and growth. I. Theory **21** (1970) 273
B. Lewis, Migration and capture processes in heterogeneous nucleation and growth. II. Comparison with experiment **21** (1970) 289
P. Adam and H. Wever, Faceting and surface transport phenomena on tungsten in the presence of an electric field or a temperature gradient **21** (1970) 307
B. Boddenberg, R. Haul und G. Oppermann, Adsorptionskinetische und NMR Spinecho-Untersuchungen zur Selbstdiffusion adsorbierter Moleküle **22** (1970) 29
B. Boddenberg, Modell für die Oberflächendiffusion im Bereich der Mono- und Mehrschichtadsorption **22** (1970) 39
P. Wynblatt and N. A. Gjostein, A calculation of migration energies and binding energies for tungsten adatoms on tungsten surfaces . . . **22** (1970) 125
H. P. Bonzel and N. A. Gjostein, Comment on: "On surface diffusion and the existence of two-dimensional liquids" by G. E. Rhead . . . **22** (1970) 216
G. E. Rhead, Reply to Comment of H. P. Bonzel and N. A. Gjostein on "On surface diffusion and the existence of two-dimensional liquids". **22** (1970) 223
Ch. Kleint, Surface diffusion model of adsorption-induced field emission flicker noice. I. Theory **25** (1971) 394
Ch. Kleint, Surface diffusion model of adsorption-induced field emission flicker noise. II. Experiments **25** (1971) 411
P. A. Tick and A. F. Witt, Computational approach to equilibrium relaxation in central force systems **26** (1971) 165
J. M. Blakely and R. L. Schwoebel, Capillarity and step interactions on solid surfaces. **26** (1971) 321
A. Masson, J. J. Métois et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. I. Partie expérimentale . **27** (1971) 463
R. Kern, A. Masson et J. J. Métois, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. II. Partie théorique. . . **27** (1971) 483
T. E. Schmid and R. W. Balluffi, Formation and migration of artifact vacancies induced on gold surfaces by neon field ion microscopy. . **28** (1971) 32
F. Delamare and G. E. Rhead, Increase in the surface self-diffusion of

copper due to the chemisorption of halogens **28** (1971) 267
A. E. B. Presland, G. L. Price and D. L. Trimm, Hillock formation by surface diffusion on thin silver films **29** (1972) 424
A. E. B. Presland, G. L. Price and D. L. Trimm, The role of microstructure and surface energy in hole growth and island formation in thin silver films **29** (1972) 435
J. J. Métois, M. Gauch, A. Masson et R. Kern, Migration brownienne de cristallites sur une surface et relation avec l'épitaxie. III. Cas de l'aluminium sur KCl; précisions sur le mécanisme de glissement. . **30** (1972) 43

Surface energy, *see also* Surface tension

D. L. Heron and D. Haneman, Two-centre theory of large surface unit cells on semiconductors. **21** (1970) 12
A. Corciovei, M. Croitoru and D. Grecu, Lattice distortion of an fcc crystal near a free surface **21** (1970) 109
P. Wynblatt and N. A. Gjostein, A calculation of migration energies and binding energies for tungsten adatoms on tungsten surfaces . . . **22** (1970) 125
L. Georgescu and R. Moldovan, General conservation laws for the multicomponent phase interface **22** (1970) 149
H. Sato and S. Shingzaki, Interfacial energy as a factor in controlling epitaxial behavior **22** (1970) 229
K. Leinfelder, Comments on "Surface energy of liquids isolated in narrow capillaries" by W. J. O'Brien **23** (1970) 427
W. J. O'Brien, Reply to the Comments of K. Leinfelder on "Surface energy of liquids isolated in narrow capillaries" **23** (1970) 428
H. K. Livingston and C. S. Swingley, Contact angles in controlled atmospheres: some theoretical considerations **24** (1971) 625
R. F. Egerton, Surface free energies of lead telluride **24** (1971) 647
Vu Thien Binh, A. Piquet, H. Roux, R. Uzan et M. Drechsler, Evolutions morphologiques des pointes métalliques par traitement thermique (vérification de la théorie de Nichols et Mullins) **25** (1971) 348
W. Ward and J. M. Phillips, Calculated lamellar binding. I. Van der Waals bonding in talc and pyrophyllite **25** (1971) 379
P. A. Tick and A. F. Witt, Computational approach to equilibrium relaxation in central force systems **26** (1971) 165
L. E. Murr, R. J. Horylev and G. I. Wong, Measurement of absolute interfacial free energies in a NiCr alloy **26** (1971) 184
E. Gerlach, Estimate of surface energies of metals **26** (1971) 310
J. M. Blakely and R. L. Schwoebel, Capillarity and step interactions on solid surfaces. **26** (1971) 321
J. V. Dave and F. F. Abraham, Comparison of the potential energies for various packings of microcrystallites **26** (1971) 557
K. H. Rieder, Vibrational surface thermodynamic functions of magnesium oxide **26** (1971) 637
R. G. Linford and L. A. Mitchell, Interplanar potential functions for calculating surface energies and cohesive stress **27** (1971) 142
A. Pavlovska and D. Nenow, Experimental investigation of the surface melting of equilibrium form faces of diphenyl. **27** (1971) 211
H. M. Scholberg, Effect of curvature on the thermodynamics of surfaces **28** (1971) 229
H. Sang and W. A. Miller, On surface energy calculations using the pairwise bonding model. **28** (1971) 349
A. T. Fromhold, Jr., Stress in dielectric contact layers on metals . . . **29** (1972) 396
J. P. Biberian and M. Bienfait, Entropy of the (00.1) face of graphite. . **30** (1972) 242

Surface migration, *see* Surface diffusion

Surface photovoltage

C. L. Balestra, J. Łagowski and H. C. Gatos, Determination of surface state energy positions by surface photovoltage spectrometry: CdS . . **26** (1971) 317
J. Shappir, Determination of the surface barrier height by combined measurements of surface photovoltage and field effect **26** (1971) 545
J. H. Dinan, L. K. Galbraith and T. E. Fisher, Electronic properties of clean cleaved {110} GaAs surfaces **26** (1971) 587
J. Łagowski, C. L. Balestra and H. C. Gatos, Photovoltage inversion effect and its application to semiconductor surface studies: CdS . . **27** (1971) 547
C. L. Balestra and H. C. Gatos, Contact potential measurements on "clean" CdS surfaces **28** (1971) 563
F. Steinrisser and R. E. Hetrick, Wavelength dependence of the surface photovoltage in vacuum cleaved CdS. **28** (1971) 607
M. J. Katz, D. C. Fox and K. J. Haas, The effect of adsorbed water on the surface photovoltage of GaAs. **28** (1971) 627
J. Łagowski, C. L. Balestra and H. C. Gatos, Determination of surface state parameters from surface photovoltage transients: CdS . . . **29** (1972) 203
J. Łagowski, C. L. Balestra and H. C. Gatos, Electronic characteristics of "real" CdS surfaces **29** (1972) 213
L. K. Galbraith and T. E. Fischer, Temperature- and illumination-dependence of the work function of gallium arsenide. **30** (1972) 185
J. Łagowski, E. S. Sproles, Jr. and H. C. Gatos, Photovoltage inversion effect resulting from a continuous spectrum of surface states: ZnO . **30** (1972) 653

Surface plasma

J. M. Elson and R. H. Ritchie, The damping rate of plasma waves in condensed matter **30** (1972) 178

Surface potential

W. Mönch, On metal–semiconductor surface barriers **21** (1970) 443
V. N. Dobrovol'skii, G. K. Ninidze and O. S. Zinets, Transverse surface impedance of germanium when generation of nonequilibrium carriers is caused by alternating current **22** (1970) 137
A. J. Sargood, C. W. Jowett and B. J. Hopkins, A relationship between surface potential and electronegativity for adsorption on tungsten single crystals **22** (1970) 343
R. R. Slater, Surface Madelung potentials in electron spectroscopy . . **23** (1970) 403
E. Gerlach, A note on screening at intrinsic semiconductor surfaces . . **23** (1971) 417
B. J. Hopkins and S. Usami, The surface potential of hydrogen on tungsten (100), (110) and (112) single crystal surfaces **23** (1970) 423
J. Shappir, Determination of the surface barrier height by combined measurements of surface photovoltage and field effect **26** (1971) 545
J. C. Inkson, The electron–electron interaction near an interface . . . **28** (1971) 69
D. F. Klemperer and J. C. Snaith, Roughness and surface potential in physisorption **28** (1971) 209
P. V. S. Rao and J. T. Waber, Surface field analysis of splitting of orbitals of atoms and ions approaching a metal surface **28** (1971) 299
G. K. Hall and C. H. B. Mee, The surface potential of oxygen on iron, cobalt and manganese **28** (1971) 598
P. Roy and D. W. Fuerstenau, The effect of doping on the point of zero of charge of alumina **30** (1972) 487

Surface states

J. Kassabov, N. Velchev and S. Kaschieva, Influence of γ radiation on the surface states and hole mobility at the Si–SiO_2 interface **21** (1970) 366
Y. C. Cheng, A model for interface states in silicon/silicon dioxide structure **23** (1970) 432
E. Guesne, C. Sébenne and M. Balkanski, Electronic surface properties of CdSe single crystals under vacuum or oxygen **24** (1971) 18
M. Henzler, The effect of oxygen on surface structure and surface states of cleaved germanium (111) faces. **24** (1971) 209
I. B. Ermolovich, G. P. Peka and M. K. Sheinkman, Effect of surface states on luminescent properties of CdS single crystals **24** (1971) 229
W. E. Tefft and K. R. Armstrong, Shallow donor surface impurity levels in Si and Ge **24** (1971) 535
P. Mark, Methods of determining surface state energies **25** (1971) 192
E. G. McRae, Surface-state resonances in low-energy electron diffraction. **25** (1971) 491
W. M. Fairbairn, The effect of bulk impurities on localized surface states. **25** (1971) 587
M. Henzler, The origin of surface states **25** (1971) 650
D. Kalkstein and P. Soven, A Green's function theory of surface states . **26** (1971) 85
C. L. Balestra, J. Łagowski and H. C. Gatos, Determination of surface state energy positions by surface photovoltage spectrometry: CdS. . **26** (1971) 317
S. G. Davison and K. P. Tan, Surface field effects on Tamm states . . **27** (1971) 297
S. R. Morrison, Measurement of surface state energy levels of one-equivalent adsorbates on ZnO **27** (1971) 586
Y. C. Cheng, On the scattering of electrons in magnetic and electric surface states by surface roughness **27** (1971) 663
R. Castagné and A. Vapaille, Description of the SiO_2–Si interface properties by means of very low frequency MOS capacitance measurements **28** (1971) 157
D. S. Boudreaux, Surface states on simple metals: aluminum. . . . **28** (1971) 344
S. N. Kozlov, V. F. Kiselev and Yu. F. Novototskii-Vlasov, Investigation of long-term processes on a real germanium surface. . . . **28** (1971) 395
V. A. Tyagai and G. Ya. Kolbasov, The contribution of surface states to the charge transport process across CdS, CdSe–electrolyte interface. **28** (1971) 423
W. M. Gersbacher, Jr. and T. O. Woodruff, Thickness effects in thin films **28** (1971) 489
G. F. Amelio, A new method of measuring interface state densities in devices **29** (1972) 125
J. Łagowski, C. L. Balestra and H. C. Gatos, Determination of surface state parameters from surface photovoltage transients: CdS. . . **29** (1972) 203
J. Łagowski, C. L. Balestra and H. C. Gatos, Electronic characteristics of "real" CdS surfaces **29** (1972) 213
F. Yndurain and M. Elices, Surface states calculation for the (100), (110) and (111) faces of Si **29** (1972) 540
G. Allan and P. Lenglart, Electronic surface states in cubic lattices. . **30** (1972) 641
J. Łagowski, E. S. Sproles, Jr. and H. C. Gatos, Photovoltage inversion effect resulting from a continuous spectrum of surface states: ZnO. . **30** (1972) 653
J. J. Harris and A. J. Crocker, The effect of surface states on the transport coefficients of thin semiconductor films **30** (1972) 692

Surface structure, *see also* Low-energy electron diffraction

F. Bonneton et M. Drechsler, Relaxation tangentielle de surface (en particulier de la face (112) d'un cristal cubique centré). **22** (1970) 426
P. Mark, Methods of determining surface state energies **25** (1971) 192
C. Lea and C. H. B. Mee, Thermal etching of (100), (110) and (113) oriented faces of tungsten single crystals **25** (1971) 332

M. Henzler, The origin of surface states 25 (1971) 650
P. A. Tick and A. F. Witt, Computational approach to equilibrium relaxation in central force systems 26 (1971) 165
J. M. Wilson and T. J. Bastow, Surface thermal expansion for Cr(100) and Mo(100) single crystals 26 (1971) 461
C. E. Carroll and J. W. May, Ionic monolayers on metals. I. Layers of like ions 29 (1972) 60

Surface tension, *see also* Surface energy

M. J. Sparnaay and J. M. Morabito, RMS displacements on liquid and solid surfaces 21 (1970) 178
H. J. Wasserman and J. S. Vermaak, On the determination of a lattice contraction in very small silver particles 22 (1970) 164
C. Maze and G. Burnet, Modifications of a non-linear regression technique used to calculate surface tension from sessile drops 24 (1971) 335
R. A. Fredlein, A. Damjanovic and J. O'M. Bockris, Differential surface tension measurements at thin solid metal electrodes 25 (1971) 261
W. J. O'Brien, Anomalous behavior of liquids in isolated contact with solids 25 (1971) 298
F. D. McCormack, A theory of surface tension based on the interaction between orbiting molecules 26 (1971) 375
C. Maze and G. Burnet, Estimation of non-equilibrium surface tension. 27 (1971) 411
W. Y. Lau and C. M. Burns, A pendent drop–sessile drop approach for the determination of surface tension 30 (1972) 478
W. Y. Lau and C. M. Burns, Effective surface driving force causing liquid to spread on solid surfaces 30 (1972) 497

Tantalum

D. L. Fehrs and R. E. Stickney, Contact potential measurements of the adsorption of alkali metals on Ta(110) and W(100) crystals. 24 (1971) 309
M. Bacal and M. Cristescu, The effect of electron reflection on the magnetron cut-off characteristic 26 (1971) 230
A. Tardif, J. M. Michel et J. Wach, Cinétique de décomposition du pentane sous 10^{-5}–10^{-7} Torr à la surface du tantale et des carbures Ta_2C et TaC, entre 1300 et 2300 K. 26 (1971) 255
W. C. Niehaus and E. A. Coomes, Surface-barrier analysis for niobium and tantalum and tantalum-on-niobium from periodic deviations in the thermionic Schotky effect 27 (1971) 256
J. F. Cuderman, Cold surface ionization of fast K atoms on Ta and W ribbons 28 (1971) 569
B. J. Hopkins, M. Leggett and G. D. Watts, A RHEED study of the adsorption of oxygen, hydrogen, nitrogen and water vapour on the (100) face of tantalum 28 (1971) 581
P. B. Sewell, D. F. Mitchell and M. Cohen, A kinetic study of the initial oxidation of a Ta(110) surface using oxygen K_α X-ray emission. . 29 (1972) 173

Tantalum carbide

A. Tardif, J. M. Michel et J. Wach, Cinétique de décompositon du pentane sous 10^{-5}–10^{-7} Torr à la surface du tantale et des carbures Ta_2C et TaC, entre 1300 et 2300 K 26 (1971) 255

Tellurium

D. E. Andersson and S. Andersson, Two-dimensional layers of tellurium on a copper (001) surface 23 (1970) 311

Thin films

G. Wurzbacher and P. Gebhardt, Interaction of physisorbed oxygen with thin superconducting tin films **21** (1970) 324
C. Reale, Structural characteristics of vacuum deposited discontinuous nickel films **22** (1970) 19
P. Croce, G. Devant, M. G. Sere and M. F. Verhaeghe, Thin film surface studies by X-ray reflection **22** (1970) 173
N. Mancini and E. Rimini, Annealing of polycrystalline Au and Au–Ag thin films **22** (1970) 357
G. Wedler, C. Wölfing und P. Wissmann, Die photoelektrischen Eigenschaften aufgedampfter Nickelfilme; Einfluss von Schichtdicke und Temperung **24** (1971) 302
D. P. Smith, Analysis of surface composition with low-energy backscattered ions **25** (1971) 171
K. Jacobi und J. Hölzl, Auger-Elektronen-Emission dünner Kohlenstoff-Folien in Reflexion und Transmission **26** (1971) 54
G. Wedler und P. Wissmann, Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen **26** (1971) 389
J. Borrajo and J. M. Heras, Electrical conductivity of thin cobalt films . **28** (1971) 132
D. M. Kolb and J. D. E. McIntyre, Spectrophotometric determination of the optical properties of an adsorbed oxygen layer on gold. . . . **28** (1971) 321
W. M. Gersbacher, Jr. and T. O. Woodruff, Thickness effects in thin films **28** (1971) 489
T. Baird, J. R. Fryer and E. V. Riddell, Oxidation of thin tin films. . **28** (1971) 525
A. E. B. Presland, G. L. Price and D. L. Trimm, Hillock formation by surface diffusion on thin silver films **29** (1972) 424
A. E. B. Presland, G. L. Price and D. L. Trimm, The role of microstructure and surface energy in hole growth and island formation in thin silver films **29** (1972) 435
R. C. Cinti and B. K. Chakraverty, The growth of silver films on silica in ultra-high vacuum. I. Experimental – growth model. **30** (1972) 109
R. C. Cinti and B. K. Chakraverty, The growth of silver films on silica in ultra-high vacuum. II. Discussion – nucleation model **30** (1972) 125
Z. Bastl, Comments on: "Zur Deutung der durch die Adsorption von Gasen an dünnen Metallschichten hervorgerufenen Widerstandsänderungen" by G. Wedler and P. Wissmann **30** (1972) 245
Wm. H. Krueger and S. R. Pollack, The initial oxidation of aluminum thin films at room temperature **30** (1972) 263
Wm. H. Krueger and S. R. Pollack, Room temperature adsorption of water by aluminum thin films **30** (1972) 280
J. J. Harris and A. J. Crocker, The effect of surface states on the transport coefficients of thin semiconductor films. **30** (1972) 692
H. J. Bauer, D. Blechschmidt and M. von Hellermann, On the influence of gaseous hydrogen on the saturation magnetization of thin evaporated nickel films **30** (1972) 701

Thorium oxide

H. Knözinger und H. Jeziorowski, Das Adsorptionsverhalten von Thoriumoxid. I. Kinetik der Adsorption von Äthanol, Äthyläther und Wasser **22** (1970) 111

Tin

G. Wurzbacher and P. Gebhardt, Interaction of physisorbed oxygen with thin superconducting tin films **21** (1970) 324
A. G. Jackson and M. P. Hooker, Auger-LEED investigations of Sn on Mo (100) **27** (1971) 197
T. Baird, J. R. Fryer and E. V. Riddell, Oxidation of thin tin films. . **28** (1971) 525

Tin oxide

M. Kuisl und F. Wilhelm, Untersuchungen an Zinndioxidschichten . . **22** (1970) 253

Titanium

H. E. Bishop, J. C. Rivière and J. P. Coad, Auger spectroscopy of titanium **24** (1971) 1
G. E. Hill, I. Marklund and J. Martinson, Simultaneous LEED and RHEED studies of the growth of zirconium on the tungsten (100) surface **24** (1971) 435
J. R. Anderson and N. Thompson, Study of adsorption of titanium on tungsten and rhenium by field electron emission. **26** (1971) 397
T. Smith, Sputter cleaning and etching of crystal surfaces (Ti, W, Si) monitored by Auger spectroscopy, ellipsometry and work function change **27** (1971) 45
H. E. Grenga and R. Kumar, Hydrogen-ion microscopy of titanium. . **29** (1972) 447

Tungsten

H. A. M. van Eekelen, The behaviour of the field-ion microscope: a gas dynamical calculation **21** (1970) 21
P. Le Goff et R. Ducros, Un modèle mathématique de la contamination d'une surface catalytique pour les réactions de décomposition et d'oxydation d'un hydrocarbure. II. Application aux réactions de l'éthylène sur rhénium et sur tungstène **21** (1970) 153
D. W. Bassett, Field ion microscope studies of iridium adatom clusters on (110) tungsten surface **21** (1970) 181
D. L. Fehrs, T. J. Lee, B. J. Hopkins and R. E. Stickney, Comments on "An electron diffraction study of cesium adsorption on tungsten". . **21** (1970) 197
P. Adam and H. Wever, Faceting and surface transport phenomena on tungsten in the presence of an electric field or a temperature gradient. **21** (1970) 307
J. M. Chen and C. A. Papageorgopoulos, LEED study of Na on W(112) **21** (1970) 377
K. D. Rendulic, A comparison between FIM and LEED studies of surface reconstruction **21** (1970) 401
A. G. Fedorus and A. G. Naumovets, Cesium on tungsten (001) face; structure and work function **21** (1970) 426
R. G. Musket, Auger electron spectroscopy study of electron-impact desorption **21** (1970) 440
F. Okuyama, Electron microscopic observation of the shape of field emission cathode tips **22** (1970) 1
D. L. Adams, L. H. Germer and J. W. May, The adsorption of hydrogen on tungsten (112); co-adsorption of hydrogen with oxygen . . . **22** (1970) 45
P. Wynblatt and N. A. Gjostein, A calculation of migration energies and binding energies for tungsten adatoms on tungsten surfaces . . . **22** (1970) 125
A. J. Sargood, C. W. Jowett and B. J. Hopkins, A relationship between surface potential and electronegativity for adsorption on tungsten single crystals **22** (1970) 343
L. R. Clavenna and L. D. Schmidt, Interaction of N_2 with (100) W . . **22** (1970) 365

C. W. Jowett and B. J. Hopkins, Work function changes due to the adsorption of chlorine, bromine and iodine on tungsten single crystal surfaces **22** (1970) 392
J. N. Smith, Jr., J. Wolleswinkel and J. Los, Residence time measurements for the surface ionization of K on W: the effects of surface contaminants **22** (1970) 411
R. J. Bayuzick and R. S. Goodrich, Observations of grain boundaries with the field ion microscope **23** (1970) 225
D. F. Ollis and M. Boudart, Surface and bulk carburization of tungsten single crystals **23** (1970) 320
D. L. Adams and L. H. Germer, Adsorption of hydrogen on W(100) . . **23** (1970) 419
B. J. Hopkins and S. Usami, The surface potential of hydrogen on tungsten (100), (110) and (112) single crystal surfaces **23** (1970) 423
C. Kohrt and R. Gomer, The adsorption of CO on the (110) plane of tungsten **24** (1971) 77
D. L. Fehrs and R. E. Stickney, Contact potential measurements of the adsorption of alkali metals on Ta(110) and W(100) crystals . . . **24** (1971) 309
M. R. Leggett and R. A. Armstrong, A study of hydrogen adsorption on a (100) tungsten surface using a simple HEED system **24** (1971) 404
G. E. Hill, I. Marklund and J. Martinson, Simultaneous LEED and RHEED studies of the growth of zirconium on the tungsten (100) surface **24** (1971) 435
G. D. W. Smith and J. S. Anderson, Field emission and field ion microscope studies of the epitaxial growth of nickel on tungsten **24** (1971) 459
H. F. Winters and D. E. Horne, The chemisorption of nitrogen at activated sites on a polycrystalline tungsten surface **24** (1971) 587
E. Sugata, S. Ishii and K. Masui, Initial growth of platinum crystals on the tungsten surface as observed by the field-ion microscope. **24** (1971) 612
E. Sugata and S. Ishii, A method for the continuous observation of the oxygen adsorption phenomena in the field ion microscope **24** (1971) 663
K. Yonehara and L. D. Schmidt, A LEED study of structures produced by H_2 on (100)W **25** (1971) 238
C. Lea and C. H. B. Mee, Thermal etching of (100), (110) and (113) oriented faces of tungsten single crystals **25** (1971) 332
Vu Thien Binh, A. Piquet, H. Roux, R. Uzan et M. Drechsler, Evolutions morphologiques des pointes métalliques par traitement thermique (vérification de la théorie de Nichols et Mullins) . . . **25** (1971) 248
Ch. Kleint, Surface diffusion model of adsorption-induced field emission flicker noise. II. Experiments **25** (1971) 411
B. J. Hopkins, C. B. Williams and P. C. Wilmer, Chemical and physical adsorption of oxygen on the (110) plane of tungsten **25** (1971) 633
M. Pichaud, A. Müller and M. Drechsler, Temperature distribution along metal tips (for field emission microscopy and the study of surface phenomena) **26** (1971) 14
Y. C. Chen and D. N. Seidman, On the atomic resolution of a field ion microscope **26** (1971) 61
D. L. Adams and L. H. Germer, The adsorption of nitrogen on W(100) . **26** (1971) 109
R. L. Lewis and R. Gomer, Adsorption studies in the field ion microscope with argon imaging **26** (1971) 197
P. W. Tamm and L. D. Schmidt, Crystallographic anisotropies in condensation: N_2 on (110)W **26** (1971) 286
J. M. Chen and C. A. Papageorgopoulos, Work function and LEED study of Na and O_2 covered surfaces of W(112) **26** (1971) 499
P. J. Jennings, Computations of relativistic LEED intensities and spin-polarisations for tungsten (001) **26** (1971) 509

F. M. Gardner, F. E. Girouard, W. L. Boeck and E. A. Coomes, Thermionic emission from single-crystal filaments **26** (1971) 605
R. A. Collins, Silicon adsorption on tungsten field emitters **26** (1971) 624
D. L. Adams and L. H. Germer, Adsorption on single-crystal planes of tungsten. I. Nitrogen **27** (1971) 21
T. Smith, Sputter cleaning and etching of crystal surfaces (Ti, W, Si) monitored by Auger spectroscopy, ellipsometry and work function change . **27** (1971) 45
Y. C. Chen and D. N. Seidman, The field ionization characteristics of individual atomic planes **27** (1971) 231
D. V. Tendulkar and R. E. Stickney, Diffraction of helium atoms from a tungsten (112) crystal surface **27** (1971) 516
R. R. Rye and B. D. Barford, Flash desorption of hydrogen on tungsten (211) **27** (1971) 667
J. R. Anderson and N. Thompson, Adsorption of Cl_2 on titanium studied by field emission microscopy **28** (1971) 84
J. T. Yates, Jr. and T. E. Madey, The adsorption of methane by tungsten (100) **28** (1971) 437
J. F. Cuderman, Cold surface ionization of fast K atoms on Ta and W ribbons **28** (1971) 569
R. P. H. Gasser, T. N. Morton, J. M. Overton and A. K. Szczepura, Kinetic isotope effects in hydrogen adsorption on tungsten **28** (1971) 574
C. E. Carroll and J. W. May, Ionic monolayers on metals. I. Layers of like ions **29** (1972) 60
R. Klein, Preparation of contiguous chemisorbed adlayers by sequential deposition and surface migration **29** (1972) 309
K. J. Matysik, A hydrogen superstructure on W(110) **29** (1972) 324
J. J. Hren, A. J. W. Moore and J. A. Spink, Anomalous FIM images of tungsten **29** (1972) 331
E. G. McRae and G. H. Wheatley, Observation of electron reflection at tungsten (001) surface in the energy range 1–10 eV **29** (1972) 342
D. A. King and M. G. Wells, Molecular beam investigation of adsorption kinetics on bulk metal targets: nitrogen on tungsten **29** (1972) 454
S. Hellwig und J. H. Block, Die Feldemission des Wolframs nach der Adsorption von Kohlenwasserstoffen **29** (1972) 523
T. E. Madey, Adsorption and displacement processes on W(111) involving CH_4, H_2, and O_2 . . . . . **29** (1972) 571
J. M. Burkstrand, F. M. Propst, T. L. Cooper and D. E. Edwards, A note on energy loss measurements in tungsten **29** (1972) 663
M. Sato, Saturated state of hydrogen on tungsten at room temperature . **29** (1972) 667
J. M. López-Sancho and J. L. de Segovia, Adsorption kinetics and electron desorption of O_2 on polycrystalline tungsten **30** (1972) 419
J. T. Yates, Jr. and D. A. King, Chemisorption of carbon monoxide on tungsten: correlation of reflection–absorption infrared spectra with CO binding state population **30** (1972) 601
A. K. Mazumdar and H.-W. Wassmuth, Mass-spectrometric study of the chemisorption of oxygen on tungsten under transient and steady-state desorption conditions. **30** (1972) 617

Vanadium

L. Viermans and J. Vennik, Auger electron emission spectroscopy of the V_2O_5(100) and V(100) surfaces **24** (1971) 541

Vanadium pentoxide

L. Viermans and J. Vennik, Auger electron emission spectroscopy of the

V_2O_5(100) and V(100) surfaces **24** (1971) 541

Water

K. LEINFELDER, Comments on "Surface energy of liquids isolated in narrow capillaries" by W. J. O'Brien **23** (1970) 427
W. J. O'BRIEN, Reply to the Comments of K. Leinfelder on "Surface energy of liquids isolated in narrow capillaries" **23** (1970) 428
W. J. O'BRIEN, Anomalous behavior of liquids in isolated contact with solids **25** (1971) 298
F. W. RÖLLGEN und H. D. BECKY, Feld- und Oberflächenreaktionen des Wassers **27** (1971) 321

Work function

J. M. CHEN and C. A. PAPAGEORGOPOULOS, LEED study of Na on W(112) . **21** (1970) 377
D. L. ADAMS, L. H. GERMER and J. W. MAY, The adsorption of hydrogen on tungsten (112); co-adsorption of hydrogen with oxygen **22** (1970) 45
A. J. SARGOOD, C. W. JOWETT and B. J. HOPKINS, A relationship between surface potential and electronegativity for adsorption on tungsten single crystals **22** (1970) 343
C. W. JOWETT and B. J. HOPKINS, Work function changes due to the adsorption of chlorine, bromine and iodine on tungsten single crystal surfaces **22** (1970) 392
R. BOUWMAN and W. M. H. SACHTLER, Photoelectric determination of the work function of Ru-films as a function of sintering temperature (78°K–925°K) **24** (1971) 140
D. L. FEHRS and R. E. STICKNEY, Contact potential measurements of the adsorption of alkali metals on Ta(110) and W(100) crystals . . . **24** (1971) 309
R. BOUWMAN and W. M. H. SACHTLER, Photoelectric determination of the equilibration of metal and alloy films **24** (1971) 350
J. M. CHEN, LEED, Auger, and work function studies of clean and Na-covered surfaces of GaAs **25** (1971) 305
R. G. WILSON, Surfaces ionization hysteresis phenomena **25** (1971) 385
J. M. CHEN and C. A. PAPAGEORGOPOULOS, Work function and LEED study of Na and O_2 covered surfaces of W(112) **26** (1971) 499
F. M. GARDNER, F. E. GIROUARD, W. L. BOECK and E. A. COOMES, Thermionic emission from single-crystal filaments **26** (1971) 605
T. SMITH, Sputter cleaning and etching of crystal surfaces (Ti, W, Si) monitored by Auger spectroscopy, ellipsometry and work function change . **27** (1971) 45
J. T. YATES, JR. and T. E. MADEY, The adsorption of methane by tungsten (100) **28** (1971) 437
T. E. MADEY, Adsorption and displacement processes on W(111) involving CH_4, H_2, and O_2 . . . . . **29** (1972) 571
G. E. BECKER and H. D. HAGSTRUM, Orbital energy spectra of electrons in chemisorption bonds: O, S, Se on Ni(110) and Ni(111) **30** (1972) 505

Wurtzite

M. F. CHUNG and H. E. FARNSWORTH, Investigations of surface stability of II–VI wurtzite compounds by LEED **22** (1970) 93

X-ray studies

P. CROCE, G. DEVANT, M. G. SERE and M. F. VERHAEGHE, Thin film surface studies by X-ray reflection **22** (1970) 173

D. F. Ollis and M. Boudart, Surface and bulk carburization of tungsten single crystals **23** (1970) 320
P. B. Sewell, D. F. Mitchell and M. Cohen, A kinetic study of the initial oxidation of a Ta(110) surface using oxygen, K_α X-ray emission. . **29** (1972) 173
R. W. Vook, S. Ouyang and M. A. Otooni, X-ray measurement of the (111) surface relaxation in gold **29** (1972) 277

Zeolites

D. Freude, D. Müller and H. Schmiedel, On the line shape problem of proton resonance spectra of hydroxyl groups on solid surfaces. . . **25** (1971) 289
J. H. Block and M.-S. Zei, Desorption of carbonium ions from zeolite surfaces; a comparison of reactive surface ionization with field ionization **27** (1971) 419

Zinc

I. M. Ritchie and R. K. Tandon, Some doping studies on the oxidation of zinc in the temperature range 200–390 °C **22** (1970) 199

Zinc oxide

K. M. Sancier, ESR investigation of photodamage to zinc oxide powders **21** (1970) 1
E. Demessemaekers, H. Van Hove and A. Neyens, The behaviour of a ZnO surface in a glow discharge **21** (1970) 189
H. J. Van Hove, Slow field induced relaxation on pure and Li-doped ZnO. **22** (1970) 76
H. Harreis and G. Heiland, Capacitance of metal contacts on clean semiconductor surfaces (ZnO and Si, surface states) **24** (1971) 643
F. Cardon and W. P. Gomes, Experiments on the zinc oxide/electrolyte interface during anodic oxidation reactions under pulsed illumination **27** (1971) 286
J. P. Bonnelle and M. Guelton, ESR evidence of surface Fermi level anchoring by surface additives on ZnO **27** (1971) 375
S. R. Morrison, Measurement of surface state energy levels of one-equivalent adsorbates on ZnO **27** (1971) 586
E. F. Wasserman and K. A. Polacek, Low temperature epitaxy of Au on ZnO **28** (1971) 77
J. D. Levine, A. Willis, W. R. Bottoms and P. Mark, Correlation of electronic LEED, and Auger diagnostics on ZnO surfaces. . . . **29** (1972) 144
J. Łagowski and E. S. Sproles, Jr. and H. C. Gatos, Photovoltage inversion effect resulting from a continuous spectrum of surface states: ZnO **30** (1972) 653

Zirconium

G. E. Hill, I. Marklund and J. Martinson, Simultaneous LEED and RHEED studies of the growth of zirconium on the tungsten (100) surface **24** (1971) 435

Book review

V. F. Kiselev, Surface Phenomena in Semiconductors and Dielectrics . **27** (1971) 384

New books

Structure et Propriétés des Surfaces des Solides, Proc. Colloques Internationaux du Centre de la Recherche Scientifique, No. 187, 1969, Paris **25** (1971) 462

K. M. Bowkett and D. A. Smith, Field-Ion Microscopy **25** (1971) 464
J. R. Anderson, Ed., Chemisorption and Reactions on Metallic Films. . **29** (1972) 329
Thin Liquid Films and Boundary Layers (Discussions University of Cambridge) **30** (1972) 247
G. Gergely, Ed., Ellipsometric Tables of the Si–SiO_2 System for Mercury and HeNe Laser Spectral Lines **30** (1972) 247
N. Klein, D. S. Tannhauser and P. Pollak, Eds., Conduction in Low-Mobility Materials **30** (1972) 247
J. Fripiat, J. Chaussidon et A. Jelli, Chimie-Physique des Phénomènes de Surface – Applications aux Oxydes et aux Silicates **30** (1972) 712

News items

1971 Thin Films Gordon Research Conference (Tilton, New Hampshire, August 1971). **25** (1971) 461
Third Australian Electrochemistry Conference (Terrigal, New South Wales, February 1972) **25** (1971) 461
Fifth International Vacuum Congress (Boston, Mass., October 1971) . **26** (1971) 363
Chemistry at Interfaces (Meriden, New Hampshire, July 1971) . . **26** (1971) 688
Thirty-Second Annual Physical Electronics Conference (Albuquerque, N.M., 1972) **27** (1971) 686
Obituary **27** (1971) 230
Second Symposium on Surface Physics (Enschedé, The Netherlands, 1972) **28** (1971) 356
Second National Conference on Crystal Growth (Princeton, N.J., 1972) **28** (1971) 656
Faraday Society Discussion Meeting on Solid–Solid Interfaces (Nottingham University, U.K., 1972). **30** (1972) 248
Electron Emission Spectroscopy (Gent, Belgium, 1972) **30** (1972) 248
First International Conference on Modulation Spectroscopy (Tucson, Arizona, 1972) **30** (1972) 249
Gordon Research Conference (New Hampshire and Wisconsin, 1972) . **30** (1972) 713

Errata

F. O. Goodman, Scattering of atoms by solid surfaces; critical review of the Lennard–Jones, Devonshire and Strachan theory of inelastic gas–surface interactions, and some improvements. Surface Science **24** (1971) 667 . . . . . **26** (1971) 364
R. Bouwman and W. M. H. Sachtler, Photoelectric determination of the equilibration of metal and alloy films. Surface Science **24** (1971) 350. **26** (1971) 364
L. E. Murr, R. J. Horylev and G. I. Wong, Measurement of absolute interfacial free energies in a NiCr alloy, Surface Science **26** (1971) 184 **27** (1971) 383
G. Dalmai-Imelik, J. C. Bertolini et J. Rousseau, Commentaires sur "Auger spectroscopy of carbon on Ni" de J. P. Coad et J. C. Rivière. Surface Science **27** (1971) 379 . . . . . **28** (1971) 657
O. Litzman and J. Celý, The Raman surface scattering in crystals. Surface Science **21** (1970) 390. . . . . **30** (1972) 250
T. T. Tsong, On field ionization enhancement by field adsorption of inert gas atoms. Surface Science **28** (1971) 651 . . . . . **30** (1972) 250
C. Maze and G. Burnet, Estimation of non-equilibrium surface tension. Surface Science **27** (1971) 411 . . . . . **30** (1972) 716

Electron Spectroscopy

Proceedings of an International Conference held at Asilomar, Pacific Grove, California, 7–10 September, 1971.

Edited by D. A. SHIRLEY, *Lawrence Berkeley Laboratory, Berkeley, California*

1972. 928 pages. Dfl. 90.00 (ca. $ 28.25) ISBN 0 7204 0243 3

The purpose of this meeting was to bring together workers with diverse interests in photoelectron spectroscopy, to discuss recent progress and problems of common interest. 225 scientists from 12 countries attended, and a very wide range of interests was represented including semiconductor, atomic and metal physics, physical, organic, inorganic and analytical chemistry, catalysis etc. Each formal session included one or two invited papers and up to five contributed papers. In the volume these are arranged essentially in order of presentation with each chapter corresponding to a session. 60 contributed papers are also published in full.

Contents:

New developments in electron spectroscopy. Cross sections and angular distributions. Molecular photoelectron spectroscopy. Valence bands in solids. Chemical shifts in core-level binding energies. Multicomponent lines. Auger spectroscopy and varia.

Invited papers:

Perspectives and problems in electron spectroscopy. General survey of electron spectroscopy. The dependence of photoionization cross section on the photoelectron energy. Photoelectron angular distributions. Some topics in photoelectron spectroscopy at Oxford. Molecular orbitals and line intensities in ESCA spectra. Ultraviolet photoelectron spectroscopy studies of noble and transition metals. X-ray photoemission studies of valence electronic levels in solids. Core-level binding-energy shifts from molecular-orbital theory. The estimation of core-electron binding-energy shifts using the concept of the equivalence of equally charged cores. Multiplet splittings in photoelectron spectra. Auger electron spectroscopy.

Invited contributors:

T. A. Carlson – J. Daintith – D. E. Eastman – C. S. Fadley – U. Gelius – F. A. Grimm – S. B. M. Hagström – W. L. Jolly – J. P. Maier – P. W. Palmberg – A. W. Potts – W. C. Price – M. E. Schwartz – K. Siegbahn – D. G. Streets – R. E. Stronski – D. A. Sweigart – J. D. Switalski – D. W. Turner.

AMSTERDAM P.O. BOX 3489 **NORTH HOLLAND** PUBLISHING CO. NETHERLANDS

Sole distributors for the U.S.A. and Canada:
American Elsevier Publishing Company, Inc., 52 Vanderbilt Avenue, New York - N.Y. 10017

The Electronic Structure of Point Defects

As Determined by Mössbauer Spectroscopy and by Spin Resonance

By G. K. WERTHEIM, Bell Telephone Laboratories, Murray Hill, N.J., U.S.A., A. HAUSMANN and W. SANDER, Institute of Physics, Technical University of Rhine/Westphalia, Aachen, Germany

1971. 234 pages. Dfl. 65.00 (ca. $ 19.00) ISBN 0 7204 1754 6

"*Defects in Crystalline Solids*", *Volume 4*

The numerous examples of applications treated in both parts of this volume clearly illustrate the important contributions made by spin resonance and Mössbauer methods to a better knowledge of the nature and the behaviour of defects in crystalline solids. It is hoped that the volume may stimulate effective research by these unique methods which form an invaluable complement to the more conventional methods used in the field.

CONTENTS: **Part I** (G. K. WERTHEIM): **The Study of Crystalline Defects by Mössbauer Effect:** Introduction to the Mössbauer effect; Lattice defects; Impurities and their association with defects in nonmetals; Chemical impurities in metals.
Part II (A. HAUSMANN and W. SANDER): **Study of Structural Defects by Spin Resonance Methods:** *Part A:* Basic principles of spin resonance spectroscopy: Electron spin resonance; Electron nuclear double resonance; Nuclear magnetic resonance. *Part B:* Summary of experimental results: Colour centres in the alkali halides; Paramagnetic defects in II–VI group compounds; III–V semiconducting compounds; Group IV elements and compounds; Other crystals.

Previously published in the series:

Volume 1: **R. S. Nelson,** The Observation of Atomic Collisions in Crystalline Solids
1968. 295 pages. Dfl. 50.00 (ca. $14.75) ISBN 0 7204 1751 1

Volume 2: **K. M. Bowkett** and **D. A. Smith,** Field-Ion Microscopy
1970. 267 pages. Dfl. 54.00 (ca. $15.75) ISBN 0 7204 1752 x

Volume 3: **H. Kimura** and **R. Maddin,** Quench Hardening in Metals
1971. 134 pages. Dfl. 36.00 (ca. $10.50) ISBN 0 7204 1753 8

AMSTERDAM P.O. BOX 3489 **NORTH HOLLAND** PUBLISHING CO. NETHERLANDS

Sole distributors for the U.S.A. and Canada:
American Elsevier Publishing Company, Inc., 52 Vanderbilt Avenue, New York–N.Y. 10017

Contributions may be written in English, German or French. They should be submitted in **triplicate** with original drawings of the figures and an abstract in English. All manuscripts originating in France, whether in French or in English, should be submitted to the Regional Editor in France. All manuscripts originating in the Federal Republic of Germany, the Democratic Republic of Germany and Austria, whether in German or in English, should be submitted to the Regional Editor in Germany. All manuscripts originating in European Countries, other than those mentioned above, as well as those originating in Africa, should be submitted to the Regional Editor in England. All manuscripts originating in North and South America, in Asia, in Australia or New Zealand, should be submitted to the Editor.

Papers not exceeding 1000 words in length, and with a modest number of illustrations should be submitted as "Letters to the Editor". Comments on papers published in Surface Science are welcomed in the form of "Letters to the Editor". The submission of a paper will be taken to imply that the author has satisfied himself that no copyright will thereby be infringed.

In a general way, contributors are invited to follow the recommendations of the Symbols and Units nomenclature Commission of the I.U.P.A.P.

Symbols of scalar quantities are printed in italics (e.g. D for a diffusion constant, l for a length, p for a pressure). Vectors are printed in bold type, indicated by wavy underlining in the text or in formulae.

All letters or groups of letters representing functions (exp, sin, log), units (cm, dyne, atm), chemical symbols or any abbreviations not representing a quantity (d-shell, n = neutron), names of places or organisations (AERE, ANL) are printed in ordinary type, and should be left in the typescript without underlining or full stops. The approximate place of the figures and tables should be indicated in the typescript. Each table should be on a separate sheet, and should have a title in addition to its serial number.

Line figures should be originals, drawn in India ink and fully lettered. Reduction of size during reproduction should be kept in mind. Photographs for reproduction should be unmounted, unless they form part of a composite figure, and somewhat more contrasty than is desired in the printed version. Where necessary, the top edge should be identified on the back.

The figure captions should be listed on a separate sheet.

References should be consecutively numbered in the text, thus: "Jones and Smith[1]) have reported that...", and listed at the end of the MS (after any appendices). Whenever possible, references to published papers should be given in preference to unpublished reports.

surface science

CONTENTS

AUTHOR INDEX 731

SUBJECT INDEX 759